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INSANITY

AND

ITS TREATMENT.

LECTURES

ON THE

TREATMENT OF INSANITY AND KINDRED NERVOUS DISEASES.

BY

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BOERICKE & TAFEL:

NEW YORK:
145 GRAND STREET.

PHILADELPHIA:
1011 ARCH STREET.

LONDON: HOMŒOPATHIC PUBLISHING CO., NO. 2 FINSBURY CIRCUS.

1882.

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TO

SELDEN H. TALCOTT, M. D.,

MEDICAL SUPERINTENDENT OF THE STATE HOMŒOPATHIC ASYLUM FOR THE INSANE AT MIDDLETOWN, NEW YORK, IN APPRECIATION OF HIS EFFORTS TO EXTEND OUR KNOWLEDGE OF THE PROPER HOMŒOPATHIC TREATMENT OF THE INSANE;

ALSO,

TO THE STUDENTS

OF THE

BOSTON UNIVERSITY SCHOOL OF MEDICINE,

FOR WHOM THESE LECTURES WERE FIRST PREPARED, THIS VOLUME IS RESPECTFULLY DEDICATED

BY

THE AUTHOR.

PREFACE.

The lectures which form the basis of the present volume were first prepared, and delivered before the Senior Class of the Boston University School of Medicine, in the winter of 1879–80. They were revised and again delivered at the session of 1880–81. Frequent inquiries were made by the students and others for the best work on insanity, one giving at the same time a knowledge of homœopathic therapeutics, but I was obliged to answer that, with the exception of Jahr's Mental Diseases, we had no treatise upon that subject; hence the attempt to supply the want by the publication of these lectures, imperfect as they are. Additions and changes have been made, and the book is now given, not as a complete text-book, but as containing a fairly correct summary of our present knowledge of insanity and its homœopathic treatment.

In the preparation of these lectures, free use has been made of the extensive material within my reach, and several hundred volumes have been consulted. As a rule, due credit has been given for all matter appropriated from other writers; except in those portions comprising the lectures as originally given, where to some extent the views and even the words of others

have been used. When the lectures were first compiled there was no thought of their publication, and the same care was not taken in this respect, as would otherwise have been the case.

More weight has been laid upon certain subject and less upon others, than would have been fitting, had I the intention of preparing an exhaustive text-book, such as that of Bucknill and Tuke; I have simply tried under the form of lectures to present such a book as would be of practical value to the student and practitioner—one that was concise, and yet extensive enough to be useful as a work of reference.

It has been said by Grotius, that: "The care of the human mind is the most noble branch of medicine," and if these pages enable anyone to do this work any more perfectly their purpose will be fully accomplished.

SAMUEL WORCESTER, M.D.

Salem, Mass., Sept. 5th, 1881.

CONTENTS.

LECTURE I.

Introductory and General Survey of the Subject of Mental Disease, . . 9

LECTURE II.

Definition of Terms. False Beliefs of the Insane, ... 23

LECTURE III.

Early Symptoms of Insanity, ... 47
Acts of the Insane, ... 62
Restraining Apparatus, ... 65
Artificial Feeding of the Insane, ... 68

LECTURE IV.

Causes of Insanity, ... 78

LECTURE V.

Classification, ... 94

LECTURE VI.

Idiocy and Imbecility and Dementia, ... 100

LECTURE VII.

Melancholia, ... 114

LECTURE VIII.

Melancholia, continued. Indications for the Use of Fourteen Principal Remedies, ... 145

LECTURE IX.

Mania, ... 167

LECTURE X.

Mania Transitoria, ... 202
Folie Circulaire, ... 210

LECTURE XI.

Monomania or Instinctive Insanity, ... 217

LECTURE XII.

Pyromania, ... 236
Suicidal Mania, ... 247
Kleptomania, ... 252

LECTURE XIII.

Puerperal Insanity, ... 257

LECTURE XIV.

Epileptic Insanity, ... 278

LECTURE XV.

General Paralysis of the Insane, ... 321

LECTURE XVI.

Hysteria, ... 367
Hypochondriasis, ... 386

LECTURE XVII.

Chorea, ... 393
Catalepsy, ... 403
Somnambulism, ... 410

LECTURE XVIII.

Moral Insanity and Medical Jurisprudence, ... 413

LECTURE XIX.

Non-Restraint in the Treatment of the Insane, ... 440

INSANITY AND ITS TREATMENT.

LECTURE I.

Introductory and General Survey of the Subject of Mental Disease.

Ladies and gentlemen of the Boston University School of Medicine:—There is said to be always a strong inclination in the mind of the specialist to magnify the importance of the particular subject toward which his studies are directed, and in which his thoughts are bound up. If, however, I remind you of the many thousands who fill our asylums; and the thousands at large in our midst, whose mental disturbance only becomes a matter of public knowledge after the commission of some open act of violence and crime; of the frequency with which questions as to the testamentary or business capacity of the individual may involve wide spread and serious results to person and property; if we consider these things it would seem difficult to magnify the importance of our subject, especially when we remember that an ability on the part of the physician to detect and appreciate at their just value, the early symptoms of mental derangement, and to apply the proper remedy, would, in very many cases, result in a rapid cure, if not in preventing the full development of the disease. But while I fully recognize the importance of the topics we are to study together, I bear in mind that my lectures form only a small part of your course of study, and the varied character of your future professional life. I think, therefore, that I shall best fulfil my duty, by as far as possible keeping clear of

the realm of metaphysics, and giving you a clear idea of what insanity is, the various forms under which it presents itself, their frequency, causes, dangers and treatment; so that when you go out into your chosen field of labor, you may not feel entirely at a loss or ignorant as to what course to pursue when called to see a patient who is insane.

What is insanity? Strange to say, it is difficult to give such an answer to this question as will satisfy the accurate critic; an answer that will include all forms and varieties of mental derangement, and at the same time exclude diseases not properly coming under this head.

Dr. Conolly, while admitting the difficulties which attend any attempt to define insanity, has offered the following, which will be found to include a large number of cases. "Insanity is an impairment of one or more of the faculties of the mind, accompanied with, or inducing a defect of the comparing faculty."

Dr. Andrew Combe says: "It is a prolonged departure, and without any adequate external cause, from the state of feeling and modes of thinking usual to the individual when in health, that is the true feature of disease of the mind," and again,—"there is a morbid action in one, in several, or in the whole of the cerebral organs; and, as its necessary consequence, functional derangement in one, in several, or in the whole of those mental faculties which those organs subserve."

Dr. Bucknill, who is one of the best English authorities, and co-editor of a standard work on Psychological Medicine, regards insanity "as a condition of the mind in which a false action of conception of judgment, a defective power of the will or an uncontrollable violence of the emotions and instincts, have separately or conjointly been produced by disease."

Prof. W. A. Hammond, late Surg. Gen. U. S. Army, says: "Insanity is a manifestation of disease of the brain, characterized by a general or partial derangement of one or more faculties of the mind, and, in which, while consciousness is not abolished, mental freedom is prevented, weakened or destroyed."

The late Judge Edmonds of New York, in his *Select Cases*, Vol. I, defines a *sane man* as one

"1. Whose senses bear truthful evidence.

"2. Whose understanding is capable of receiving that evidence.

"3. Whose reason can draw proper conclusions from the truthful evidence thus received.

"4. Whose will can guide the thought thus obtained.

"5. Whose moral sense can tell the right and wrong growing out of that thought.

"6. And whose act can, at his own pleasure, be in conformity with the action of all those qualities; all these unite to constitute sanity; the absence of any one of them makes insanity."

Professor Maudsley says: "Whatever opinion may be held concerning the essential nature of mind and its independence of matter, it is admitted on all sides that its manifestations take place through the nervous system, and are affected by the condition of the nervous parts which minister to them. If these are healthy, they are sound; if these are diseased, they are unsound. Insanity is, in fact, disorder of brain, producing disorder of mind; or, to define its nature in greater detail, it is a disorder of the supreme nerve centres of the brain, the special organs of mind, producing derangement of thought, feeling and action, together or separately, of such degree or kind as to incapacitate the individual for the relations of life."

Dr. Prosper Despine, of Marseilles, France, expresses himself thus in his work *De la Folie:* "Madness consists in an involuntary moral blindness of the mind as to the false, absurd, immoral and irrational ideas, and the irrational perverted propensities inspired by the passions. A blindness caused by the absence of the *rational sentiments;* the only ones capable of enlightening the mind as to the true character of these ideas and desires; that is to say, an absence of the *moral consciousness.* It seems that this definition clearly points out the nature of instinctive insanity, a form of mental alienation which specially merits the name of insanity; a form in which the instinctive or moral faculties are alone affected, the intellectual remaining untouched. The other forms, such as mania, paralytic insanity, dementia, idiocy and stupor, seem to form a class of a wholly different nature, for which the term, *mental alienation* serves as the best definition possible."

I shall hardly venture on a definition, but the position taken in these lectures will be that insanity is a disease of the brain, a morbid physical state, and not a disease of the mind; but only, so far as the mind is concerned, a disturbance of its manifestations. It is undoubtedly true that in the past and in the present there are insanities caused by spiritual and moral disturbances and disorders. But in all such cases we have the accompanying physical symptoms, and it is upon and through the physical organism that we as physicians must operate. This theory assumes the existence of a soul or spirit independent of bodily conditions, so far as death and disease are concerned, but, so far as this life is concerned, dwelling in a natural earthly body through the mediation of an inner spiritual body, which gives form and life to the former; for St. Paul truly says, "There *is* a natural body and there *is* a spiritual body." It assumes the brain to be the instrument of the mind, the physical instrument of mental action. It assumes as a precedent fact and cause of insanity that a morbid physical change must occur in the brain or its investing membranes; or that there must be a functional disturbance as of the circulation.

Says Winslow: "Can we conceive a more preposterous notion than that sanctioned by high authority, which inculcates that the spiritual principle admits of being disturbed, deluded, depressed, exaggerated, perverted, exalted, independently of any bodily disease, or modification of nervous matter?" and he adds, "is it necessary that I should in this advanced age of the science of physiology stop to argue the question, whether the brain is or is not the material organ of the mind?"

We can subscribe to the doctrine, that with each display of mental power, there are correlative changes in the material substratum (if we choose so to designate the brain), and, without subscribing to the doctrine that mind is the product of matter under any condition of change, may assert that every manifest *phenomenon* of mind is the result or the accompaniment to our senses, "of some change, molecular, chemical or vital, in the nervous elements of the brain." Man has two

faculties, a will and an understanding, and together these constitute the mind. The will and understanding are not spiritual abstractions, but real substantial forms, even though not visible to the eye nor the microscope, any more than many other things which really exist. The human understanding has its seat in the cerebrum, and thence come the thoughts; the human will is in the cerebellum, whence come the affections, passions and desires. Man thinks and wills sanely or insanely, according as the parts of the brain are in a state of integrity or not; consequently, he is rational and moral according to his mind's organic structure. This is only making the brain, what has long been admitted and what science seems fully to demonstrate, the material organ of the mind; a material medium through which it impresses itself upon matter, and through which it communicates with other minds.

In an address upon Biology, delivered before the British Association, at Sheffield, England, August 20, 1879, the president, Dr. Allman, remarked as follows: "When we say that life is a property of protoplasm, we assert as much as we are justified in doing. * * * * When a thought passes through the mind, it is associated (as we have now abundant reason for believing) with some change in the protoplasm of the cerebral cells. Are we, therefore, justified in regarding thought as a property of the protoplasm of those cells, in the sense in which we regard muscular contractions as a property of the protoplasm of muscle? Or is it really a property residing in something far different, but which may yet need for its manifestation the activity of cerebral protoplasm? The chasm between unconscious life and thought is deep and impassible, and no transitional phenomena can be found by which, as by a bridge, we may span it over; for, even from irritability, to which, on a superficial view, consciousness may seem related, it is as absolutely distinct as it is from any of the ordinary phenomena of matter."

Holding these views, we may agree with Dr. C. H. Hughes in admitting that just as a good liver secretes good bile, provided the conditions of the blood are favorable, a good candle gives good light, and good coal a good fire, provided the two

latter have a good supply of oxygenated air, and the primary conditions to the development of light and heat; so does a good brain, all other conditions being favorable, give the manifestations of a good mind; without agreeing with Dr. W. A. Hammond, that "when the brain is quiescent there is no mind;" and without regarding the mind as nothing more than "the result of cerebral action," as does Tyndall; "granted that a definite thought and a definite molecular change in the brain occur simultaneously, we do not possess the intellectual organ, nor apparently any rudiments of the organ which would enable us to pass by a process of reasoning from the one phenomenon to the other, they appear together but we do not know why." We admit the invariable connection between brain-power and the power of mental manifestation; but the brain is still in our view the servant of the mind, though the latter is influenced by the states of the former, in the manifestations it makes to the world. The brain serves the mind, and yet the mind is dependent upon the brain, just as the master is in a sense, the servant of his servants, and dependent upon them.

We may regard mind, as manifested to us, as so closely blended with matter in the form of brain-cells, that we cannot tell where one ends and the other begins,—cannot draw a line of demarcation. We may consider a living material organism as essential to the manifestations of the mind; and the different manifestations or expressions of mind in health and in disease as dependent upon the physical condition of that organism, just as the will-power is dependent upon the healthy state of the organs which it controls for its expression or manifestation.

We would also fully agree with Prof. Maudsley in the remark, "To call mind a function of the brain, might lead to much misapprehension, if it be thereby supposed that the brain is the only organ which is concerned in the function of mind. There is not an organ in the body which is not in intimate relation with the brain by means of its paths of nervous communication; which has not, so to speak, a special correspondence with it through internuncial fibres, and which

does not therefore, affect more or less plainly and specially its function as an organ of mind. It is not merely that a palpitating heart may cause anxiety and apprehension, or a disordered liver gloomy feelings, but there are good reasons to believe that each organ has its specific influence on the constitution and function of mind. So close is the physiological sympathy of parts in the commonwealth of the body, that it is necessary in the physiological study of mind to regard it as a function of the whole organism, as comprehending the whole bodily life."—(*Responsibility in Mental Disease*, p. 17.)

We see then that the term *diseased mind* is merely a convenient mode of saying that the mind in its manifestations to our perceptions is altered, just as the light of the sun is obscured to our sense of vision by the clouds. The emotions and manifestations of mind to the individual and to those about him are changed by the obscuration and destruction of his senses.

Again using the language of Maudsley, "We recognize how entirely the integrity of the mental functions depends upon the bodily organization," and as physicians we cannot afford to lose sight of the physical aspects of mental states, if we would truly comprehend the nature of mental disease. "We must recognize the existence of an intelligent mental force, linked in harmonious association and essential relations with other forces, but leading and constraining them, and led and constrained by them in its manifestations."

What I would especially impress upon your minds is that insanity is one of the neuroses, always an actual disease of the brain. Dr. Amariah Brigham, for many years Superintendent of the Asylum at Utica, N. Y., says: "The phrase derangement of the mind conveys an erroneous idea, for such derangement is only a symptom of disease in the head, and is not the primary affection. The immaterial and immortal mind is, in itself, surely incapable of disease, decay, and derangement; but, being allied to a material organ upon which it is entirely dependent for its manifestations upon earth, these manifestations are suspended or disordered when this organ is diseased." Again, Griesinger says: "Insanity being a disease, and that

disease being an affection of the brain, a disease which also causes death, it can only be studied in a proper manner from the medical point of view." And Dr. Blandford says: "Unsoundness of mind is but another term for disorder of the human brain, or rather of that portion of nerve matter which has for its function the manifestation of mind."

It is evident that in order to properly understand the disordered workings of the mind, we must study it in health. The physician necessarily becomes a student of mental philosophy. He has to deal with mental phenomena in all forms of disease. In cases of indigestion and constipation he has often to deal *with quality* of depression, which he may afterwards recognize in a more marked degree, as the developing, central impression; clouding the judgment, and disturbing the emotional life, and heralding an attack of melancholia or hypochondria. Later, he finds this *quality* of depression becoming a defined, concrete, painful *sentiment*, occupying the entire thought, and ultimately developing into delusion and the patient is insane. So in other forms of insanity; the normal habits of thought,—the ordinary play of feeling,—will be found to have undergone an *unsteadiness* under physically disordered states, which may or may not have been brought to the attention of the physician, before the final outbreak in open insanity.

I cannot do better at this point than repeat the words used by Dr. John P. Gray in a lecture before the medical class at Bellevue College. He says: "Insanity is not a strange, mysterious, incomprehensible condition of mind. It introduces nothing new. It is only a heightening, a lessening, or a perversion, more or less complete, of the natural qualities and characteristics of the individual; a changed state of the mental operations due to physical disorder within the cranium. That this disturbance of feelings and of the mental operations is often painfully appreciated by the patient is a significant fact. Indeed the majority of persons who become insane, detect the earlier indications and are frequently able to give the preceding and concomitant bodily troubles. And it is not uncommon for persons to seek admission to an asylum themselves,

not simply under vague apprehensions of insanity, but under a recognition of bodily and mental disturbance, in which they are conscious, to use a common phrase, that "they are not themselves, and are out of their mind." He also says: "I wish here to state that I have never carefully examined an insane person who did not present physical marks of the disorder, and I have never seen a post-mortem of the brain of an insane person, however recent or mild the attack, where the microscope failed to reveal lesions of structure."

It is also true that in an asylum we meet with nothing new, we find the same ideas, the same errors, the same passions, the same misfortunes; it is the same world; but in such a house the traits are stronger, the colors more vivid, the shades more marked, the effects more startling, because man is there seen in all his nakedness, because he does not discriminate his thoughts, because he does not conceal his defects, because he lends not to his passions the charm which seduces, nor to his vices the appearances which deceive.

I have dwelt thus long on this part of my subject, so as to bring your minds fully to recognize the one central idea of *disease;* to urge you to look upon it as physicians, to bring to your aid your knowledge of anatomy and physiology in studying this subject, so that under clinical study you may more easily apply the principles of pathology and common sense in your investigations.

In all times various opinions have been held regarding the connection between the soul and the body, and the most widely differing hypotheses have been put forth on this point; this is still the case, especially in Germany; where the opinions of the *spiritualistic* school, first set forth by Stahl, and supported by Heinroth and Ideler, still contend for supremacy with the views of the *materialistic* or *somatic* school, of which Jacobi is the most able and noted champion. The psychical school disregarded or denied the influence of the body on the mind, and considered all the phenomena of insanity only as abnormal activity of the mind. On the other hand if the existence of the mind were denied, all spiritual activities were stamped as expressions of the life of the brain, or crowded together in a

labyrinth of incomprehensible and complicated reflex phenomena; and upon this conception, a mere machine or automaton was made out of the human body.

According to my convictions we must clearly separate the functions of the brain, which have different results according to their different purposes, and according to the condition of the active cells, from a higher principle, namely, an independently operating mind, which, as was before intimated, is in the most intimate way connected with those cells, and receives impressions through them, but which again can act independently upon them; and, by this arbitrary acting is distinguished from all other powers of nature.

This absolute will acts nowhere but in the brain, and in this alone is our consciousness rooted. Some writers speak of an unconscious will in the spinal cord, but the words themselves seem to involve a contradiction. If a nerve or the spinal cord be divided, automatic or reflex movements may occur in the separated parts, but not spontaneous or voluntary. We *feel* indeed that the seat of our consciousness is in the head alone, and the body really finds itself outside the ego; that we act on the body as on an apparatus in which our mind does not dwell.

Dr. Garth Wilkinson divides the nervous system into an animal and an automatic; the latter is a mere machine; the former in its two-fold aspect is a nerve animal with senses.

The cells in the brain develop an activity which communicates itself to the mind, be it as perception of a sensitive impression, be it—and this is the principal thing—as image or idea, as reproduction of a previous perception. Thus we stand in the closest connection with that cell-activity. For as it may communicate itself to our mind, so on the other hand may our mind act on the cells in the cortical layer; we are in a position to set the cells in activity and thus call up a dormant image, a memory or a recollection. Yet the functions belonging to the *cells*, must not be confounded with the ego; the organic power acting in them finds itself dependent upon their composition, and they are accessible to other stimuli than our will. If the cells are irritated in the way of inflammation as in insanity, or through abnormal conditions of the blood as in

fever, then the images appear involuntarily, and we are delirious.

Prof. Van der Kolck says: "Could any one, indeed, contend that the violent spasms of an epileptic attack exhibit abnormal action of the mind? The organic power acts here for itself; therefore, not according to the will; it is not identical with our higher principle, but rather subservient to it. If through an attack of cerebral hemorrhage the implements on which our will acts become affected, then paralysis occurs, that is to say the capability for movement is lost, but not the will for their execution, from which it may be concluded that the activity of the brain is not the same thing as the mind or higher principle. Surely no one would maintain that by means of drugs or electricity, through which anæsthesia or paresis would be removed, the lost activity of the perception or the lost will would again be restored to the mind. Only the instruments with which our mind works are brought again to their normal state. In this relation between the higher individuality and the functions of the brain, we have the connection between mind and body, by means of which both act interchangeably on one another. But the connection is so intimate a one, that every increase of energy of the brain, every alteration or exhaustion of it soon reacts on the mind; in the one case, raising and straining, in the other, depressing and blunting."

This involuntary influence of the body in general, and of the brain in particular, displays itself under special circumstances in a more or less decided manner; indeed, even exhibits itself in peculiarities in the dispositions and character of different individuals. It is the cause why, in our actions, so often something involuntary, a certain blind impulse, is in operation.

The occurrence of the voluntary and the involuntary in our actions is one of the most difficult problems. The most satisfactory explanations are offered to us by the accurate investigation of diseased conditions, where the activities occurring belong to the involuntary, and, according to the different degrees of their manifestation, can be most readily distinguished.

We should remember that the brain-cells, those namely in the anterior part of the hemispheres, not only aid us to achieve ideas, but also to recall the presence of earlier received impressions; which impressions are sometimes involuntarily communicated to our mind; or at times through our mind are again increased in liveliness and activity. The faculty of imagination belongs therefore to that mental power which stands in the closest consociation with the functions of the brain. "If these cortical cells are in activity, it depends entirely on the degree of excitement, whether the involuntary has the upper hand as in delirium; or whether the mind governs and arranges the images and ideas, and voluntarily produces through quiet ruling, bold creations of fancy, such as we admire in the plastic works of a Powers, in the "Jerusalem Delivered" of a Tasso, or in Beethoven's masterly compositions. These cells of the cortical substance thus mediate as connection between body and mind. If, on the one hand, through these cells involuntary images are called forth, as in sleeping or dreaming, so on the other hand, we are able to act upon them and set them in operation, so that this or that image arises for us, which at a previous time had been laid down there by sensitive impressions and stored up."—(*Pathology and Therapeutics of Mental Diseases.* J. L. C. Schröder Van der Kolck.)

The cortical, or ideational cells, as Maudsley calls them, first receive the impressions through the perception cells of the sensory apparatus, and, while the impression in the perception cell soon vanishes, it remains stored up and slumbering in the ideational cells of the cortex. These latter form the storehouse and magazine for the treasures of our memory; if they have once reacted on an impression, and have thus become set in activity, then they appear changed in state and form, so as to retain this impression, and henceforth are capable of responding in the same way to a mental stimulus from within, as formerly to a sensory stimulus from without.

This effect of sensory impressions on the cortex of the brain must be clearly distinguished from the impressions themselves. Borrowing an illustration from Van der Kolck, let us imagine

a blind man who feels a triangle. He first finds one angle, and then passing the finger over the object, he finds also the other two angles. These impressions are conveyed to the perception cells of feeling, and thence are delivered to the cells in the cortex of the brain, where the different impressions are by the mind combined into a whole, so that the triangle is perceived. Such a course of events can be possible only by the impression here not being obliterated as quickly as in the perception cells. If the impression remained a long time in the latter, the observation of the first angle would coincide with that of the second and third; and the perception of the three different angles, and their combination in the brain cortex into one body, namely, into a triangle, would be impossible. Here the isolated impressions are first combined, here also we discern whether different simultaneous impressions coming through several organs of sense proceed from one object or from several.

All this is higher action of the mind, and the cells which retain and elaborate the impressions as images and ideas stand in relation to it as indispensable means.

Observation and the progress of modern physiology all tend to show that the workings of the mind act upon the body, not merely in exceptional cases, but constantly; that is to say, that the ideas, emotions, thoughts, passions and actions are invariably followed by certain organic changes in the brain. Hence the efficacy of moral causes in producing insanity.

From the foregoing considerations it seems evident that in our spiritual activities, an involuntary action of the body (the organic function of the brain cells included), and the voluntary action of the mind meet together, and in and on one another, and thus complex thoughts, thoughts and ideas are originated.

Dr. Garth Wilkinson says: "I know of nothing that expresses so physiologically the case between the automatic and the other parts of this system as the ratio between the living creatures and the wheels in Ezekiel. 'And the living creatures went, the wheels went by them; and when the living creatures were lifted up from the earth, the wheels were lifted

up. Whithersoever the spirit was to go, they went, thither was their spirit to go; and the wheels were lifted up over against them, for the spirit of the living creature was in the wheels. When those went, these went; and when those were lifted up from the earth, the wheels were lifted up over against them for the spirit of the living creature was in the wheels.'"

As regards the different kinds of action of the cortical cells, it seems to be acknowledged by most physiologists, that the convolutions lying under the frontal bone, or the fore-brain, are concerned more in the higher, spiritual faculties: the understanding and the function of ideas; while the posterior convolutions and especially those of the cerebellum are more involved in manifestations of the emotions, affections and passions.

Schröder van der Kolck says, although anatomical evidence of its truth is wanting: "Through the anterior lobes of the brain rather the plastic visual impressions are received; through the posterior lobes rather the perceptions of hearing and feeling. Through the posterior cells the mind receives a peculiar perception and disposition by means of its faculty of delineation, and indeed with the help of the anterior brain lobes it gives to this perception form and body."

In support of this view that the different lobes of the brain have different kinds of work to perform, Van der Kolck, who was for a long time Professor at Utrecht, says, that in insanity proper he has always found the anterior lobes of the brain suffering; while in the melancholic and those who have condemned themselves, with or without religious admixture, he has found the upper and posterior parts of the lobes diseased; and, that in the latter cases the understanding showed no trace of disturbance, inasmuch as the individual judged correctly and disputed acutely. The pathological affection then limits itself to the upper and hinder parts of the lobes, and in the foreparts nothing abnormal is seen in regard to color, firmness and connection with the pia mater. In those who had finished with dementia, the anterior parts of the lobes were never found intact; they were always adherent to the pia mater, and this could not be removed without injury to the brain cortex.

LECTURE II.

Definition of Terms. False Beliefs of the Insane.

Before entering upon the study of the various forms of insanity, it will be well for us to obtain a clear understanding of the meaning and proper use of certain terms in constant use when speaking of the insane. These terms you must comprehend if called upon to give opinions respecting the mental condition and legal responsibility of parties who have made wills or contracts; or who have committed offenses against person or property; or in cases where it is proposed to appoint guardians over the persons and estates of those suspected of insanity, or commit them to the custody of an asylum. All this you will find of great importance if ever brought into courts of law, as well as when you are seeking to understand the workings of the insane mind.

These terms are *hallucination, illusion, delusion, impulse, lucid interval* and *delirium.* I mean to do more than call your attention to the bare definition of these words, and to try to give you an idea of the pathological states in which they are found, so that you may be able to differentiate insanity from other diseases of the brain, and from other disordered states of the nervous system.

Let us first briefly consider the various false beliefs of the insane, and then give a more particular study to a few of the most important.

Hallucination is variously defined by authors and is used in a wide sense; but in a restricted and medical sense, it is a false perception of the senses. The person sees, hears, smells or feels that which has no existence. Despine says, that hallucination consists in the perception of a sensorial impression, produced, not as is usual, by the action of the external world upon the sensory nerves in the organs of sense, the eyes, ears, skin, etc., but by stimulation of those nerve tracts from within. Hallucination then, is not a simple product of the imagina-

tion; it does not bring up an object as in a dream or an objective memory; the sensorial impression is as real as when caused by an external stimulus. The hallucinated individual sees the object with his eyes as if it really existed. He hears the voices as well as if they really spoke; and there is nothing so far as his senses are concerned which can cause him to distinguish the sensorial impression thus produced from one caused by an outward object. The knowledge that he has of the phenomena, the reasoning that demonstrates the impossibility of the presence of the perceived objects, the testimony of others denying their existence, can alone give him the certainty that they do not really exist. The hallucinated patient thinks that he sees in the blackest darkness, or hears a voice through any number of thick walls, whereas his seeing or hearing is entirely subjective, taking place altogether within his own head, without any excitation conveyed to his organs from the outer world; when in fact he would hear and see just the same were he deaf or blind; for example: Mr. T., a highly educated and refined gentleman was a patient in the hospital where I was a medical officer. Being fond of billiards we often indulged in a game for recreation; but more than once while we would be playing in perfect silence, he would glance up at me suspiciously, and in a few moments throw down his cue, leaving the game unfinished, and without a word, retire to his room, and from choice remain there in seclusion two or three days. While playing it would seem to him as though he was suddenly assailed by voices insulting him with all manner of vile language, and accusing him of all sorts of crimes.

An *Illusion* is an error of perception, the person transforms a real object or sound into something else. There is in this case something to see and something to hear, but that which the patient thinks he sees is not the real thing but something else. He sees a chariot in the sky, when every other person sees only a cloud; he hears a voice when others hear the noise of a carriage, the sighing of the wind or a distant footfall.

A *Delusion* is, in a general sense, a false idea; of the falsity

of which he cannot be persuaded, either by his own knowledge and experience, by the evidence of his senses or by the demonstrations and declarations of others. A man thinks that he is dead, that he has a fire in his inside, etc., and no amount of proof convinces him to the contrary. In a medical sense it is a false belief, and mainly, as it appears in insane persons, a misinterpretation of the appearance, the manner, the speech and the acts of those about them, or their conditions and circumstances.

These three terms are often used as if synonymous. They do interlace with each other. However, if you bear in mind as Dr. J. P. Gray says, that hallucinations and illusions are only associated with the special senses and bodily sensations; and that hallucination is wholly error, that what the patient maintains that he sees, hears, smells or feels, is utterly without foundation; and that illusion is a deception as to the identity or real character of the object; that the patient simply transforms a given object into something else; and that delusion applies *only* to ideas, you will establish in your own mind a sufficiently clear distinction. To put the matter in the plainest possible form, hallucination is a lie told by the senses out and out; illusion is a deceptive view of any existing fact or thing by the senses; and delusion is a belief by the mind of that which has no foundation, and, as we often see delusion in insanity, an untrue interpretation of that which does take place.

As was said before, insanity introduces nothing new. These terms as must be evident to you, describe conditions of the mind and sense, constantly found disconnected with insanity. All these states of mind and sense are acknowledged to be compatible with reason, with entire freedom from insanity, though perhaps not with perfect health. As examples of this we may refer to the voices heard and appearances seen by Dr. Samuel Johnson, Nicolai the bookseller of Berlin, and others.

In a lecture before the students of Columbia College upon hallucinations consistent with reason, Dr. John Ordronaux said: In those individuals who habitually overtask the brain, we shall find manifestations of that form of hallucination

which is the offspring of intensified and protracted thought. It is the true *hallucinatio stadiosa*, and the period at which it develops itself will depend upon certain physical causes not necessary to mention here. Let it suffice to say that these hallucinations are generally produced by inability to sleep soundly, and this tendency to insomnolence once established, readily passes into that of *coma vigilans*, a state productive of exquisite irritability. When the brain is long robbed of sleep it loses both the knowledge of and the ability to sleep. During this condition of vigil it reacts upon the stomach, and this again upon the brain, so that we now have two foci whence nervous irritability can be radiated and interchanged. The famous Lawrence Sterne was once in this condition for several months, and Martin Luther, as the result of his protracted mental labors, was often visited by an hallucination that the Prince of Darkness stood before him, and on one occasion went so far as to throw his inkstand at him. Dr. Johnson too, whose mighty intellect could endure a superhuman amount of labor, was nevertheless the victim of hallucinations, and one of the most superstitious men of his time. Rare Ben Johnson was also similarly visited, and Andral the great anatomist was pursued by the image of a child which he had most critically dissected.

In these instances the false perceptions were corrected by the understanding, they did not believe in them and were not insane. But we also find a firm belief in hallucinations and illusions to be perfectly consistent with sanity, as for example that of the Emperor Napoleon in his star, as related by General Rapp; and the appearance of the *radiant child* to Lord Castlereagh, and other similar instances. In all these cases we find the belief caused by superstitious education, or a belief in such appearances as not only consistent with religion, but as a sort of divine revelation. Belief was held in their truth, but the persons were not insane. As a noted author has said: "Some individuals do not rectify their hallucinations; they believe in the reality of the perceived sensations, but, at the same time, they explain them as supernatural causes, the interference of a higher power. On other points their conduct

is perfectly sensible. In our opinion there is no more madness with these than with the others. The belief in the supernatural is in the depths of the heart. Their point of view being different, they form a different judgment of the impressions which they receive; they deduce different consequences. In order that madness be real, confirmed, that it be *alienation*, it is requisite, in order to be true to the etymology of the word, that the intellectual portion of the consciousness, or that belonging to the affections, be injured, that the individual be master neither of his will nor of his judgment." (A de Chambé, Analysis of Stafkowski's work on Hallucinations.)

You may say what hallucinations, illusions and delusions are we to consider, and why take any into account? In all those cases referred to as being consistent with sanity, the appearances were recognized as being outside of their ordinary experience. A portion referred them to some departure from a normal state of health, and regretted and deplored their existence. Others accepted them as real, but did so in consequence of religious training or the ordinary belief of the time, and regarded them as messengers sent to warn, instruct and guide them; as indeed we must acknowledge may have been the case many times, if we believe in the truths of divine revelations, and that God's care for his children did not cease with the end of the Jewish dispensation.

We will now consider the hallucinations, illusions and delusions not included in the previous classes, but occurring in the insane; all these are due to recognized disorders of the brain and nervous system. In many cases you will find these three forms of false belief existing in the same persons, or you may meet but one or two of them.

I do not wish to be understood as teaching that these phenomena are to be referred to the organs of special sense. Whilst hallucinations and illusions are of the *order* of sensory phenomena they are as to their origin cerebral in character, as are delusions. Hallucinations and illusions of sight and hearing in insanity have their origin in the brain as a part of the disturbance of mental operations, and the external senses have nothing to do with them. Doubtless there are insane

persons who have true hallucinations from disease of the organs of hearing and sight; or of touch, from disease of the terminations of the peripheral nerves, but they are mostly general and ill-defined in their character, and are similar to the phenomena common to diseases of those organs.

In speaking of the hallucinations of the insane, Dr. John P. Gray, Superintendent of the Utica asylum, says, that the history of cases shows:

1. That in these cases there is, as a rule, no disease of the organs of special sense.

2. Hallucinations disappear with the decline of the delusions, if recovery take place.

3. Hallucinations take on the character of the prevailing delusions or false line of thought.

4. Hallucinations disappear in dementia or failure of mental activity, but remain in chronic mania, with activity of mind and fixed delusion.

5. Entirely blind and deaf persons have hallucinations of sight and hearing when insane.

6. Hallucinations of sight are frequent and prominent in the dark as well as in the light.

7. In the acute stages of insanity, hallucinations and illusions are present, and rapidly change with the constantly changing false ideas, revealing their mental or cerebral origin.

8. The hallucinations of the insane are not simply vague sounds, or words or lights, or ghostly shadows flitting about. They are compound, varied; often consist in seeing and talking with people in long conversations; and often like a reverie intensified and prolonged.

The diagnosis of hallucination is generally simple, but you will not always find it easy to distinguish between it and delusion. In some cases your task will be difficult, when the patient refuses or is unable to speak, or when his explanations are confused or incoherent. Certain delusions may develop quite different hallucinations in one person than in another, You will find entirely different hallucinations in persons who are highly educated, and whose range of thought is great, from what you will see in the ignorant and illiterate. This is

easily understood when we remember the important part played by the memory and the imagination in the achievement of ideas, which occurs as the result of education and habits of thought, and is an additional argument for the cerebral origin of hallucinations in the insane.

The phenomena of hallucination being psycho-sensorial, let us study the part taken by the internal nerves of sense on the one side and the mind on the other. This analytical study is necessary in order to gain an exact idea of hallucination and to satisfactorily explain its mechanism. Many theories have been advanced, and among them those views lately advanced by Dr. Ritti, in a work entitled, "Théorie physiologique de l'hallucination," are well worthy of attention and study, being based upon some noteworthy researches of Dr. J. Luys, at La Salpêtriére. But I propose placing before you the views of Dr. Prosper Despine, as unfolded in his valuable work entitled, "Psychologie Naturelle," as they are the most satisfactory to my mind of any yet advanced.

1. The role played by the organs of sense; and by an organ of sense in this connection we understand not only the external apparatus which contains the peripheral terminations of the special nerve, but this nerve throughout its entire extent up to its termination in the nervous centre of mental and automatic perception, whether this be or be not in the optic thalami as taught by Luys. For the production of the phenomenon it is not even necessary that the whole nerve should remain; a part of the nerve, however small, if in communication with the nervous centre of perception, is sufficient; thus hallucinations are possible after the destruction of the external organs of sense, and also part of its special nerve. The final ramifications of this nerve, which lose themselves in the white brain substance, in order to terminate in the gray cortex, the organs of mental perception, are alone required. Frequently, indeed, the irritation giving rise to the hallucination has its origin in this part of the nerve; then the mind by force of habit, ascribes to the organ of sense even when it no longer exists, the impression felt by the nerve, regardless of the portion of its course that may be irritated. It is in ac-

cordance with this law of projection, that after amputation, the patient refers to his absent foot, in which he has long suffered pain, the twinges which he still feels in the nerve trunks of the leg. Esquirol speaks of a man who for thirty-eight years had hallucinations of sight; after death the optic nerves were found atrophied through their whole extent.

Ordinary sensation being caused by a transmission to the brain, and consequently to the mind; not of a quality or state of an external object, but of the quality or state of a sensory nerve; a quality or state determined by an external cause, it follows that if one of these nerves is stimulated by an internal cause in the same manner as by an external, it will produce in the brain a sensorial impression similar to that caused by stimulation from without. Every stimulation of the nerves of sense produces in the brain an impression holding a definite relation with the functions of that particular nerve, and a similar perception by the mind. Thus the stimulation of the optic nerve produces a light; one sees a thousand stars or a globe of fire; stimulation of the auditory nerve produces a sound; that of the olfactory an odor, etc. The circumstances then requisite to the sensory act of the hallucination reside in the irritation, by an internal stimulus, of the sensory nerve at some point in its continuity, and not, as is usually the case, by the external world through the organs of sense.

Among other proofs that all excitation of the nerves of sense produces a perception in specific relation to their special function we may cite the following. When the nerves remain impressed for a short time after the cessation of the external exciting cause, they continue to transmit to the brain the same sensory impressions so long as the stimulation lasts. For a short time after looking at the sun, everything seems surrounded by fire, and it is the same on shutting the eyes. If we gaze intently for a few moments at a very bright white object resting upon a black background, we continue to see it after turning away *almost* as well as if it were before our eyes If the acoustic nerve be exposed for a long time to the noise of a steam engine, the vibrations in the nerve continue for some time after the cause has ceased.

This active intervention of the sensory nerves is not hypothetical, we have irrefutable proofs that the nerves of sense are affected, excited, in hallucinations, just as they are at other times by external stimuli. Thus persons have hallucinations of one eye only, others of one ear, etc. Moreau speaks of an insane woman who heard imaginary voices with the right ear only. Marcel Douat speaks of a woman who saw ghosts and tombstones with the left eye only, etc. According to Ritti, all these facts are easily explained by the physiological theory developed by him. He thinks that these unilateral hallucinations are due to functional disturbances of certain parts of the optic thalami of one side only. But the most convincing proof is to be found in the experiment proposed by Dr. Brewster and repeated many times with the same result. It is well known that if we derange by the pressure of the finger the parallelism of the two eyes, the objects before our eyes will appear double. Now if the experiment be tried with the man suffering from hallucinations of sight, he will see double the objects which do not exist at all. If the optic nerves were not affected, as they are in normal vision; if the hallucinations were *only* a mental phenomenon, as Esquirol believed, it must be evident to you that disturbing the axes of the two eyes would not produce such an effect.

An excellent illustration of hallucination and sensorial phenomena occurring in himself is related by S. Van der Kolck as follows: "The operation of the sympathetic, derived from the colon, which exhibits a peculiar tendency to reflex action on the brain, I have had an opportunity of perceiving on myself. In consequence of a powerful mental exertion and fatiguing work with the addition of a cold, I was attacked with a remittent fever, after, quite contrary to my habit, I had previously suffered for some days from constipated bowels, with a feeling of fulness in the abdomen. After two days duration of the fever, hallucinations and phantasms appeared to me; on shutting my eyes I always saw a number of people about me, and at the same time I had complete consciousness, as I was convinced it was only hallucination. Three days and nights these appearances continued with increasing intensity. In

sleep I dreamed constantly, and after waking I only needed to close my eyes in order to see the people who continually changed. At last I had a clyster, through which a large amount of highly fetid matter was evacuated, and in a moment all the appearances vanished, so that I felt myself restored." He adds: "On account of the feverish heat, I used cold applications to the head, and these had immediately the effect of making the surrounding persons and their clothes pale; their movements also became slower; for there played about me the image of a landscape, filled with a number of men, and at last I believed that I saw around me only dull gray and white statues. As I had full consciousness, I repeated this experiment several times with the same results. With the cessation of the cold applications the movement and colors of the images again returned. I even altered the experiment a few times by making the application only on the right or on the left side of the head; then only the pictures on the side corresponding to the cold applications became pale, and the other half of the group of images retained their former liveliness."

2. We will consider the role played by the mind. Hallucination being both a sensory and psychical phenomenon, we will attempt to study the part taken by the mind in its production. This participates in two ways. First, by furnishing by the memory or imagination the objects represented. The object generally has some relation to the sentiments felt by the individual. He who is a prey to fear will experience terrifying hallucinations, the man dominated by religious feelings will have hallucinations connected with the mystic and supernatural ideas of his mind. Still as the imagination has its singular freaks, producing, without known cause, strange, ridiculous and eccentric ideas, having no connection with or resemblance to the habitual thoughts,—such, for example, as come to us in dreaming,—so also it can furnish to the hallucinations similar strange objects for its perception, this peculiarity ought not then to surprise us more in one case than the other. The queerness of the ideas at times present in the hallucinations even of the sane is very remarkable. "A man,"

writes Gratiolet, "applied himself so diligently to some profound research, that his imagination was kindled, his intellect solved the problem; but in the midst of his labor he hears frequent and confused voices around him, reviling and insulting. A religious man gives himself up to God in prayer, all the forces of his will are directed toward the things of heaven, and yet he thinks he hears around him devils reviling, and words of contempt and ridicule. How shall we explain this? That a hermit, lost in toils of solitude and fastings, overcome by hunger and continence, should hear voices tempting him to eat, or the voices of women alluring him, is not strange; there may be reasons for this in the organic stimulation, the cravings of the flesh momentarily regain their sway as all can understand. But from what particular organs proceed these bitter railleries, these reproaches, and persecutions without cause, which shake the faith of the noblest minds, and cause the most cultured reason to tremble in the balance?"

After furnishing the object of the hallucination through the medium of the imagination or the memory, the mind enters a second time into the phenomena, by perceiving this object after it has been materialized, projected, personified, so to speak, by means of the stimulation of the nerves of sense by some internal cause.

Understanding the respective parts taken by the mind and the sensory nerves, we can now perceive the manner in which the hallucinations are produced. This hallucination generally coincides with a cerebral excitation, either pathological as in the insane, or physiological as with deep thinkers; this excitation may extend to the nerves of sense terminating in their organ; but when these nerves are stimulated, then results, according to the nerve impressed, a light, a sound, an impression of touch, an odor, a taste, the only ways in which these nerves manifest their activity. How now do these sensory impressions take a form, a body? How do they give the representation of an object, and how is this object drawn in the imagination? The cerebral excitement which produces all these phantoms and pictures being the agent whereby the nerves of sense are stimulated, and it being the custom of each

stimulated nerve to transmit the representation of an object in a material form, it follows that the nerve, before transmitting a sensible object to the mind, will take that object into the actual thought through the medium of the brain. The person will then really perceive with his eyes an object furnished by his mind; he will see *sensibly*, so to speak, the products of his imagination; he will hear his thoughts articulated in words, as clearly and in the same way as if they came from without. Then by force of habit, the mind refers to the external world, the perceived sensations, and assigns in that external world, a place to those objects, such as seems suited to their character; these different phases succeed each other so rapidly as to seem almost simultaneous.

It is here interesting to note that hallucinations of sight never occur to those born blind, but do occur to those in whom the external visual organs have been destroyed; another evidence in favor of the cerebral origin of this phenomenon.

This activity of the nerves of sense, produced by the excitation of the brain, being the cause of the sensorial phenomena of hallucination, it may be asked, Why does not all brain excitement act upon some one of the nerves and give rise to hallucination? The fact is, that this kind of stimulation is abnormal, pathological; for, as you know, the natural course of the current in sensory nerves is towards and not from, the brain. A current following this latter course in a sensory nerve is as unnatural and abnormal as are the anti-peristaltic contractions of the stomach. Thus we see that in order that a cerebral stimulus may extend outwards through a sensory nerve, a peculiar abnormal condition of the organism is required. If the tendency toward such a condition is naturally great, hallucinations are produced by trifling causes; and the excitement of the brain caused by ordinary intense thought, or religious reverie will at times suffice. Such is especially apt to be the case with children, and, as you will find, when they are very feverish, they are quite apt to see and hear the creations of their imagination projected outward in a sensible form.

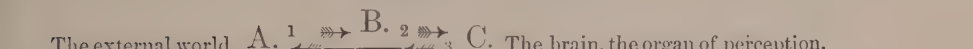
The automatic nerve centres, receiving, as do the cerebral

hemispheres, the terminal expansions from the nerves of sense, may also, like the hemispheres, transmit a nerve current outwardly; thus we see how the automatic part of our system can take part in the hallucinations. It explains excellently well such cases as that of the monk who, in a state of somnambulism, approached the bed from which his abbot had hastily risen as he entered the room. The monk passed his hand over the bed as if to satisfy himself of the presence of his proposed victim; and then raising a long knife plunged it deeply several times into the place where he *felt* the abbot's body lying.

In order to make as clear as possible the mechanism of hallucination and of normal perception, I will reproduce the diagram given by Dr. Despine, from whose work much of the foregoing explanation is translated.

Mechanism of Normal Perception.

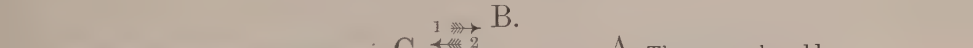
Organ of Sense and its Nerve.



In normal sensation, the exterior object A, sends an impression to the organ of sense at B; this impression is transmitted from the special nerve of sense to the cerebrum C, where the mind enters as a factor, judges of and appreciates it, and then by the law of projection refers it to its proper place and relations in the external world.

Mechanism of Hallucination.

Organ of Sense and its Nerve.



Here the mental activity giving rise to ideas and images in the brain transmits a stimulus to the sensory nerve B, somewhere in its course, contrary to the usual laws governing nerve currents. This cerebral stimulus produces an activity of the sensory nerve exactly the same as if caused by an impression from without; this is now returned from the sensory

nerve to the perception cells, and is consequently considered and judged of by the mind, not as a mental image, but as a real object. Finally by habit, the mind refers to a suitable place in the outward world—this materialized image.

In general mental excitement you will meet with hallucinations, but less frequently than with illusions; they are apt to appear among the first symptoms, and also at the last as the excitement subsides. Although frequently present during the height of the maniacal paroxysm, they are so mingled with the illusions, delusions, restlessness of body, and general incoherence of thought and speech, that it is almost impossible to distinguish them from the other false beliefs. The admissions of the patient cannot always be relied upon to prove the existence of illusion or hallucination. But they may often be detected by certain expressions of the face, and certain attitudes and gestures; sometimes, for example, the constant restlessness of the eyes gleaming anxiously from side to side, indicate that he is seeking to see some person or object pictured in his brain.

When hallucinations are present in cases of mania, we may have what some writers call sensorial or intuitive mania. The delirium is as in other cases, except that there may be a predominance of some one of its characteristics; but there is the usual incoherence of ideas owing to the inability of the mind to exercise its usual power of analysis and judgment. The presence of hallucination in general mania tends greatly to increase the incoherence. Patients of this sort seem lost in a perfect labyrinth, and their actions bear testimony to the intensity of their sufferings.

Such are the features of hallucination as found in the different forms of insanity. They may be fixed and well-defined, or rapid, incoherent and changeable. They may be distinct and clear, and even seem to add dignity and character to the mental processes, or they may be vague, hazy and testify to the decay of the mind. Then too the degree of culture and the developments of the intellectual faculties, especially of the imagination, with the insane, makes a great difference, not in the fundamental character of the mental phenomena, but in the variety

and abundance of its images and the degree of its intensity. "With those who have only a limited education, and have passed their lives at hard manual labor, the hallucinations generally consist of a limited number of perceptions, and bearing some relation to their surroundings in life; whilst those who have a liberal education, and whose minds are well stored with the fruits of travel, and a knowledge of art, literature and science, will present hallucinations whose images may interest and instruct."

In all patients alike there is an inability to see that these beliefs are false. They see it when they recover, see it without the demonstration which failed to convince them when they were insane. As Dr. Blandford says: "Nothing can be more certain than this, that during the insane state the brain cannot act as a whole, cannot by means of one part correct the ideas which arise in another. The ideas are the concomitants of strange and altered feelings which have a real existence, and until the latter pass away they are not to be removed by argument or demonstration. Sometimes during an apparent state of clearness you may flatter yourself that you have succeeded in convincing the patient of the falsity of his ideas, or at least shaken his belief in its truth, but at your next visit you will find that you have just the same state of affairs to deal with; you will be surprised also to see the acute reasoning displayed by your patients, so that you will find it difficult to avoid giving an apparent assent to the delusions. When the feeling subsides—the feeling of depression, or the excitement and elation which causes the grand and exalted fancies of some—the ideas in the majority of cases vanish also, especially if no long time has elapsed. The patient is said to have lost his delusions, and their gradual disappearance, or occasional reappearance coincides with the restoration of the general health and strength, of sleep, digestion, uterine and other functions. But it sometimes happens that the delusions remain after the feelings have gone, and we behold in the patient a confirmed monomaniac. The ideas which were at first the explanation to the patient of his altered sensations are stored up as facts of experience in a deranged brain, which never

recovers from the injury it has received, and never resumes its entire working power; remaining permanently unable by means of one part to correct the false notions of another; it remains forever the dream that arose in its half waking state." (*Lectures on Insanity* by Dr. G. F. Blandford.)

The delusions met with among the insane may be arranged in comparatively a small number of classes. All are connected in some way with self, the self-hood of the patient; all are supposed to indicate some change that has taken place with regard to himself. This change must be for the better or the worse; a change affecting his worldly or his spiritual interests; his bodily condition or his surroundings; a change which has already happened, is happening, or is about to happen at some future time. The extravagance of the idea will depend on the amount of brain disorder, and we may often see this marked out by the delusions as it rises to its climax, and then falls again.

The delusions presented by a patient who believes that things are amiss with him may be connected with his worldly or his spiritual interests. In the extreme melancholic condition which accompanies excessive depression and prostration of nerve force, there will probably be delusions on both these points. The patient is ruined and a beggar; and he has also committed the unpardonable sin and is doomed to eternal perdition. This by the way is a very common delusion. What now do we learn from these delusions? They show that there is a condition of melancholia, and they warn us to be on our guard against any tendency to suicide. "Thinking that he is doomed, and that life is insupportable; incapable of reflection and impelled by the ever present horror of his position he attempts suicide, and unless extreme caution is used he will succeed." We are taught also that the patient will try and escape, either that he may commit suicide, or may wander over the earth to escape the evils and dangers that encompass him at home. It matters not whether the delusions have reference to the past, the present or the future; he may be in a state of profound remorse for imaginary crimes, or he may shrink in terror from the torments which are to come upon him unjustly hereafter, the result is the same.

Others labor under a feeling that very much is amiss with them; yet the feelings may not be those of depression and melancholy, but rather of alarm and restless anxiety, or anger and fury. So far as the delusions are concerned, it is evidently optional whether we call such persons melancholic or maniacal; but the general deportment and feeling of many of them is far from being melancholic, and is unquestionably maniacal; while others may be ranged with equal propriety under either of the two classes. Their delusions resemble those of the melancholic class. They imagine that some evil is going to befall them; they do not, however, think that they have deserved it, but that they are unjustly treated; that wicked persons are conspiring to ruin them or their family, to blast their character or to kill them. Following out the train of thought likely to result in such cases, you will see that such a patient would be very dangerous to those about him. In order to escape, he may set the house on fire; may try to escape by force or violence; or he may conceive the idea that those around him are about to do him some harm, and murder them in supposed self-defence. A large number of the homicides committed by the insane are done in fear and panic, especially those by persons suddenly aroused from sleep. Murders are committed by those who imagine that their victim has accused them of foul and unnatural crimes, and who suffer from hallucinations in which they actually hear a voice repeating all sorts of slanderous words, or as in the case of Freeman at Pocasset, they hear voices commanding them to kill. Again a man imagines that his food is poisoned; his clothes or bedding infected; the room or furniture tainted and filthy; and all these fancies make him refuse to eat, and also very dangerous and violent. Generally speaking when such delusions remain without improvement for a year or two, the patient will remain insane through life.

A number of delusions are presented by those who fancy that the changes they feel are all for the better. In their bodily or spiritual state, or worldly position or fortune they are much better off than before. All these are said to be suffering from mania with exaltation or ambition, the *manie ambitieuse* or

megalomanic of the French writers; but among them are numbered the victims of that most fatal of all the forms of insanity, viz., general paralysis. When a man between thirty and fifty-five years of age is full of delusions that he is of great strength, rank and wealth, we may suspect that he has general paralysis, and as will be shown in another place, the result is always fatal. Often, however, these exalted, ambitious ideas make their appearance in men and women who are not paralytics, and in such cases, unless the duration of the disease has been a long one, we may render a hopeful prognosis. In fact, when there is no paralysis nor hallucination, and the attack recent, the prognosis is favorable. Here there is but little danger of injury to self or others. They may be dangerous at times, however, if we attempt to control them too closely, or insult their idea of what is due to their dignity or position.

Insane persons will and act, in all those things that are prompted by the ruling passion, with surprising tenacity, because no opposing forces arise in the mind. Thus an insane man can dissimulate and conceal his delusions and false ideas with much more cunning than the sane man, for all his energies are directed toward that end; and it is only by closely observing the person and throwing him off his guard that his true thoughts can at times be learned.

Definition of Impulse.—The next term to which I would call your attention is *Impulse*, and with the exception of the phrase *Moral Insanity*, there is no term in connection with the subject of insanity which has caused more discussion and difference of opinion; a fact which lawyers have not been slow to recognize and take advantage of in courts of law.

Dr. John P. Gray of Utica, who takes an extreme stand at one side of the question, says: "The term impulse expresses no condition of insanity, and characterizes no true phenomena of the disease. It is one of those makeshifts coined to meet cases ill-examined, and has mainly been used to screen criminals from the just punishment of the law. It has done more to bring the profession into just contempt than any other term of speculative expertism which has obtained foothold under the guise and protection of science. This term, while it was

only applied as a qualifying word to describe certain acts of the insane, which were suddenly executed, and apparently without premeditation, did no harm. Here it had the same meaning as when applied to acts of the sane. The word was used as qualifying a mental state during an act, such as impulsive suicide, impulsive homicide. By transposition it is suicidal impulse, homicidal impulse. The transposition is easy and simple, but mark how it changes the sense. Now, it declares, not that these acts were apparently unpremeditated and sudden, but that in the mind there was suddenly generated a murderous impulse, an irresistible power, which, without the intervention of reason, or any intellectual act or motive, suddenly impels to the physical acts of suicide or murder. One step more, and a murder is 'impulsive insanity.' What could be more absurd, unphilosophical, and illogical than such a conjectural condition of mind and body? Impulsive insanity! Why one might as well talk of impulsive diarrhœa or hydrophobia, yet it is a grave thing, because it is unfortunately installed in the vocabulary of both law and medicine."

Says Dr. Bucknill: "It would be well, if the term *insane impulse* could at once be banished from medico-legal discussions, the adjective in common use, *uncontrollable,* is also liable to serious objection."

On the other hand Prof. Maudsley says: "It will be a hard matter for those who have not lived among the insane and so become familiar with their ways and feelings to be persuaded, if, without such experience they ever can, that a man may be mad, and yet free from delusion, and exhibit no marked derangement of intelligence. Nevertheless it is a fact that in a certain state of mental disease a morbid impulse may take such despotic possession of the patient as to drive him, in spite of reason and against his will, to a desperate act of suicide or homicide; like the demoniac of old into whom the unclean spirit entered, he is possessed by a power which forces him to a deed of which he has the utmost dread and horror." And he adds: "This impulse is truly a convulsive idea from a morbid condition of nerve element, and is strictly comparable with an epileptic convulsion."

In his work, entitled Responsibility in Mental Disease, Prof. Maudsley further says, p. 150: "By the almost unanimous testimony of those who have made insanity a practical study, it is agreed that instances of irresistible homicidal impulse *do* occur, that this is a positive fact of observation, be the explanation of it what it may. The medical psychologist who studies mental function by the physiological method, who judges of the functions of the supreme nerve centres in man by aid of the generalizations which he has formed regarding their functions in animals, where they have not attained so great a development, and by aid also of the generalizations which he has formed concerning the functions of the lower nerve centres in man, does not experience the same difficulty in realizing the probable state of mind in impulsive insanity."

Placing insanity in the same category as a nervous disease with chorea, which has not inaptly been called an insanity of the muscles, he perceives that, just as a deranged state of the motor centres destroys co-ordination of movement and occasions spasmodic or convulsive muscular action, so a deranged state of the mind centres destroys the healthy co-ordination of ideas, and occasions a spasmodic or convulsive mental action. In the one case the man is unable to perform his movements correctly, in the other case he is unable to perform his ideas correctly; in both cases they play him evil tricks against his will, though within his consciousness.

Griesinger speaks of instances where individuals hitherto supposed to be perfectly sane, and in the full possession of their senses, "are suddenly and without any assignable cause seized with the most anxious and painful emotions, and with an homicidal impulse as strange to themselves as to others." And in illustration of this proposition he gives three examples from the experience of others, but none from his own. He also says: "We cannot speak of the absence of delirium in these cases when there is a morbid impulse to commit acts of violence." "That the murderous ideas are, in themselves, delirious ideas, just as in furious mania and in all violent emotion as in rage." He believes that the morbid disposition gives rise to the vague and disturbed ideas, opinions

and conclusions. In fact this state is, in its mental uncertainty and incoherence, quite like the more demonstrative states of incoherence in mania.

Griesinger also makes this significant comment: "If we consider more closely to which maniacal states, the designation *mania sine delirio* can be applied, we recognize the fundamental fact, that in no case of mania is the conscious thought, the intelligence, perfectly free from any disorder. Even in the very slightest degrees of mania, the intelligence participates in the general exaltation, and though it be only to the extent of increased liveliness and rapidity of thought; generally, however, there is incoherence. In all attacks of fury, clear, calm, healthy thought is impossible." (*Mental Diseases.*)

Prof. William A. Hammond would surely not be accused of favoring any fanciful distinctions in insanity; and yet in a paper upon the case of Daniel McFarland, read before the New York Medico-Legal Society, July, 1870, he says: "The brain may be so disordered that insanity is manifested only as regards the will. 1. There are no false conceptions of the intellect and no emotional disturbances, but solely an inability to exert the full will-power, either affirmatively or negatively. 2. Many instances of morbid impulse are uncomplicated cases of volitional insanity, in which an idea, suddenly flashing across the mind, is immediately carried out by the individual, although his intellect and his emotions are strongly exerted against it. Thus a person who previously has not exhibited any very obvious symptoms of mental derangement, though careful inquiry will invariably show that slight evidences of cerebral disease have been present for some days,—instantaneously feels a morbid impulse to commit a murder, or perpetrate some other criminal act. The many species of what is called 'moral insanity,' may properly be classed together under the head of 'volitional insanity,' of such are kleptomania, dipsomania, pyromania, etc."

In some cases there is a true irresistible impulse as a consequence of the pathological conditions of the brain. Thus a patient spoken of by Dr. Bonfanti, of Milan, a subject of melancholia, with an aversion to food, had from time to time

paroxysms of rage, during which he would throw himself upon the floor, striking out violently with his fists and feet, and spitting at those around him. This man recovered, and remembered perfectly his mental state during the paroxysms. He *desired* he said to act differently, but he could not. He was unable to conquer the impulse forcing him to act thus.

The real question is not, whether the emotions occasioning the overt act are beyond the power of the individual to control, but whether they are the result of disease. This is the sum of the whole matter. If certain acts and ideas are traceable to cerebral disease they have a pathological origin and are excusable; but if not, the individual is responsible in law and morals, and is not insane, no matter what he may have done, or what opinions he may have uttered; without respect to whether man is considered to be a spiritual being, or a physiological machine. But this matter will again be spoken of when we come to consider the subject of *moral* and *volitional insanity*.

Lucid interval is another term of which I must briefly speak. Dr. John P. Gray says, "This term is chiefly employed and has its principal significance in jurisprudence, particularly with wills and contracts, but occasionally with regard to crimes. You will have to determine whether patients, who have unquestionably been insane, and who have had guardians placed over their persons and estates, have really recovered, or whether certain rational speech and conduct amount to what may be called a lucid interval. So, also, you will be called on to draw the same line in behalf of persons acknowledged to have been insane, and who have for a time manifested no irrational conversation and habits, and are desirous of executing a deed, making a sale, or entering into some legal contract. In such cases you need to appreciate the term lucid interval. In ordinary disease we use the term intermission or remission to express temporary suspension or abatement of symptoms. We know that the disease still exists, and expect its phenomena to reappear. In insanity there are also apparent intermissions and remissions; and a lucid interval is a condition, not of entire freedom from disease, but a degree of

clearness of mind which for a time holds the true manifestations in abeyance. If you are called upon to answer this question, it is safer to first make your own definition as being an abatement or non-manifestation of symptoms, and if this is not sufficient, then express only an opinion as to the *rational* or *irrational* conduct, manner or speech of the individual as he then appears—remembering that rational and sane are not convertible terms. The term *sane* is a positive state of mental soundness; *rational* is applied also to particular acts or manifestations, to the seeming or apparently rational or reasonable condition of mind as casually observed in the speech and conduct. An insane man may appear rational, but he cannot be called sane." (Lecture to the Students at Bellevue Medical College.)

The presence of a delusion is not at all necessary to constitute a person insane, even in the narrowest sense of the word. In many cases no special delusion is present, or at least there is none exhibited; but the sentiments, disposition and conduct are altered in a morbid manner, and, owing to a morbid state of the brain, the individual is so influenced that the faculty of judgment is obscured, the intelligence formally involved, and the spirit held in bondage. Such an individual can be *rational*, that is he can speak on ordinary subjects without making great mistakes; he can distinguish right from wrong; directs his actions with a proper use of means and proper reflection; shows by his conduct that he knows a criminal act, and seeks to avoid punishment therefor; he can, at least for a time, so conduct himself that nothing striking is observable, and yet his disposition may be so entirely altered, his whole affective sentiments so disturbed, that an essentially different relation of the personality to himself (the ego), and to the world is formed, and the irritation of sentiment can, at any moment, appear in impassioned perverted acts and desires. "This is especially noticeable in the early stage of mental disease, in moderate cases of melancholia, in the slightest cases of mania, and very frequently in the early stage of paralytic dementia.

The last term to which I shall at present call your attention is *Delirium*. This word is generally used to describe three kinds of sensorial disturbances:

1. That met with in the insane. 2. That accompanying many acute disorders, especially those of an inflammatory and feverish character. 3. That caused by the use of toxic substances, such as alcohol, opium, hashish and the like.

In speaking of the insane, the word *delirium* is used to denote any departure from the normal line of thought, action or speech. This may arise suddenly, but as a rule it comes on gradually, giving premonitory signs of warning. The person becomes irritable, and his character and disposition changed; there are eccentricities in his conduct; his will is vacillating; we notice also perversions in his moral sense and disturbances in his intellect. In all such cases there is delirium, or as the word itself may be rendered, the patient is *wandering*, is out of the road.

This disturbance may be mild or severe; it may be confined to one or a few of the faculties and form a *partial delirium;* or it may extend to all, causing a *general delirium.* It is very often partial, as in mild cases of melancholia or monomania, and if extensive, does not affect all the faculties with equal power; hence the maniac, even in the acute stage of the disorder, is to a certain extent capable of thinking and acting properly.

LECTURE III.

Early Symptoms of Insanity. Acts of the Insane. Restraining Apparatus. Artificial Feeding of the Insane.

As has been indicated elsewhere, the cause of all insanity, and indeed of all disease, is to be found in the neglect or infraction of the established laws of physical, mental or spiritual health. It may originate from the physical side of man's nature, as from some form of ill-health in which the nutrition of the brain is affected; or from the mental side where excessive brain action produces the same result; or it may even come from a higher source still—from a disorderly use of the spiritual intelligences and loves; but in every case bodily disease is the result. In the ambition to acquire riches, power, prominence in politics, art, literature or science, the plainest laws of our physical and mental well-being are constantly violated. The claim of the body, especially the brain, for repose, for sleep, or even for nourishment to repair the waste of ordinary or excessive activity is disregarded, and the vain hope is fostered that an escape from the penalty of our actions is not only possible but certain. The folly of this course has been plainly pointed out by a recent writer in the following words: "This marvellously constituted brain, men may ignore it, despise it, degrade it, defile it, but they do it at their peril; and let them remember that whether the result is or is not actual madness, they will pay the penalty sooner or later in some form or other; they will not be permitted to escape the consequences of the infraction of the laws on which its integrity hangs."

In judging of insanity it is important to have clearly in mind what it really is; what changes it produces in the mental and moral status of the individual. "No diseases present such an infinite variety of light and shade belonging to their own nature, or to their intermixture with other maladies, or to the influence of temperament, of individual peculiarities of habit, or

of social position; and therefore, the diagnosis of no other class of diseases taxes nearly so much the ingenuity and the patience of the physician. The diagnosis of almost all other diseases depends principally upon weighing the evidence afforded by physical signs and symptoms; upon evidence addressed to the senses; but in mental disease, it is, for the most part, dependent upon evidence which is cognizable by the intellect alone, and upon data which the senses furnish to us only at second hand." (Bucknill & Tuke, *Manual of Psych. Med.*)

Insanity is shown by a change in the disposition, sentiments, desires, habits, conduct or opinions, induced by, and founded upon, disordered states of the brain. Thus the investigation of these states, and the recognition of these changed conditions is specially important to the general practitioner, as upon him rests the responsibility of the diagnosis, and the treatment of the disease in its initiatory stages. He is also called upon to decide as to the necessity for hospital care.

In making a diagnosis of a case of suspected insanity, it is not enough to study a few of the more prominent symptoms, or even one or two forms of mental alienation, but we must study all the accompanying circumstances. We must seek out and inquire into all the peculiarities, both mental and physical of the patient; the causes, near and remote, which may have contributed to the outbreak, and to the disturbance of his intellectual powers. In other words, we must take into account the whole individual, mentally and physically, together with his surroundings, and compare him with the same individual in a state of health.

Other diseases than insanity may produce mental disturbance, or as Griesinger says: "One may be melancholy from eight or ten different cerebral disorders, and demented from twenty." You will learn, too, that no arbitrary line separates insanity from sanity, for between these two, as between health and disease, we find numberless varying shades and degrees, and meet many cases where the most experienced alienist must doubt and hesitate, and give an opinion with reserve. The existence of such cases (such as graduate between reason

and mental disease) is, as Sir Henry Holland observes, but a part of that law of continuity which pervades so generally every part of the creation.

A person may be led to commit the most unreasonable acts under the influence of ignorance, credulity, prejudice and superstition; and also when blinded and deprived of moral sense by certain violent emotions, such as love, hatred, anger, vengeance, jealousy and religious fanaticism; and in many such cases it is difficult to decide whether insanity does or does not exist. Neither the belief in an absurd, fixed, irrational or false idea is sufficient to constitute a man insane. Indeed, on the one hand we continually find sane persons dominated by a multitude of false and absurd ideas; and on the other, we meet, both in the written and spoken words of the insane, most rational, consistent and logical thoughts and ideas. Insanity has no one marked characteristic; it cannot be diagnosed by a single erroneous idea, nor an isolated act of extravagance, crime or folly; far from this, it is a pathological whole, which acknowledges special causes, and which has its multiple symptoms, a well-known course, varieties and periods.

Dr. Prosper Despine says: "The conditions necessary for the existence of insanity are two; it requires, first, one or more absurd, irrational, false or immoral ideas; or exaggerated, strange and perverted affections and desires inspired by passion. But neither these irrational ideas, nor perverted cravings, nor the passions prompting them are insanity, but only its result. Insanity itself is the second condition, viz.: the moral blindness of the mind in respect to the irrational nature of these ideas and loves; an involuntary blindness due to the fact that the passions inspiring the thoughts and desires wholly occupy the mind, so that the rational sentiments, which alone can enlighten in regard to the true nature of things, are not present in the mind; in a word, there is a loss of moral consciousness in respect to the true relation of objects." (*De la Folie*, p. 275.)

The early symptoms of insanity assume an importance, as they mark the period when treatment may avail in averting a threatened attack. The pathological processes in the brain

which produce insanity are preceded by certain changes in the physical system and mental states of the individual, which, if understood and appreciated, may often be arrested by proper hygienic and therapeutic measures. It however generally happens, from various reasons, that the advice of a physician is not sought until the disease is fully developed.

Contrary to the general opinion, insanity never breaks out suddenly. Doubtless a sudden shock of terror, grief or joy, or any strong and violent emotion, may, in a few hours, be followed by an explosion of acute mania or melancholia; but, in nearly every case, the careful observer may notice for weeks or months before the outbreak a steadily increasing change, an instability in the patient's thoughts and feelings.

"Those around him remark something unusual in his tastes, inclinations, habits, character and ability to apply himself. Where he was once lively and communicative, he is now morose, sad, and shuns society; carefulness and prudence have given place to wastefulness and ostentation; modesty and chastity to all the indulgences of licentiousness and debauchery; and confidence to suspicion and jealousy. The wife regards her husband and children with indifference, and the merchant neglects his business." (Georget, *Dict. de Med.*)

One of the earliest symptoms to attract our attention is the occurrence of bad Dreams. Many patients, before becoming completely insane, have frightful dreams, and appear as if they were conscious of being on the eve of losing their reason. They often express this dread, and manifest great anxiety. They start up out of sleep, and complain of horrible apparitions. Pinel observes, "Ecstatic visions during the night often form the prelude to paroxysms of maniacal devotion. It is also by enchanting dreams, and a supposed apparition of a beloved object, that insanity from love breaks out with fury after longer or shorter intervals of reason and tranquility."

The mental activity during sleep which constitutes dreaming is so common in the experience of most people as not to be considered important as an indication of disease, but dreams especially of a frightful character, as of being tortured or murdered, of dying or of the grave, occurring in persons

unaccustomed to dreaming, and without a definite exciting cause, are often symptomatic of disorder of the brain and of the nervous system, and have long been recognized by medical writers as worthy of consideration, but too much neglected in practice. "Such symptoms in medical psychology," says Tuke, "are like the delicate clouds in the sky in meteorology; they indicate to the practiced observer the coming storm."

Dr. Bucknill says: "Want of refreshing sleep we believe to be the true origin of insanity, dependent upon moral causes. Very frequently, when strong emotion tends to the production of insanity, it causes, in the first instance, complete loss of sleep. In many cases, however, the power of sleeping is not lost, but the quality, so to say, of the function is perverted, the sleep being so distracted by agonizing dreams, that the patient awakens jaded rather than refreshed. We have known several instances in which patients becoming convalescent from attacks of acute mania, have distinctly and positively referred to frightful dreams as the cause of their malady; and it is probable that a certain quality of sleep, in which dreams excite terror and other depressing emotions more forcibly than waking events are likely to do, is not less adverse than complete insomnia to the nutritive regeneration of that portion of the brain on whose action those emotions depend. In such a condition it is highly probable that the very portions of the brain which most need a state of rest are, even during the sleeping quiescence of other portions, more wastefully engaged in the activity of their functions than they could be in the waking state. The main-spring of insanity is emotion of all kinds. This, stimulated by phantasy, and emancipated from the control of judgment, during harassed sleep, may be more profoundly moved than at any other time. In this manner, a patient, some one or other of whose emotions has been profoundly affected, may continue to be sleepless, so far as the activity of the particular emotion is concerned, although he may by no means be the subject of general insomnolence." (*Manual of Psych. Med.*, p. 423.)

Sleeplessness.—Of still more importance and greater frequency is impairment of the function of sleep. Stress is laid

upon this fact where the causes of insanity are spoken of. There is no symptom, when viewed in relation to the health of the brain and mind, that requires more careful and unremitting attention than that of insomnia or sleeplessness. It is one of the most constant accompaniments of insanity. The brain cannot be in a healthy condition whilst a state of sleeplessness exists. Sound, continuous, unbroken, regular and uninterrupted sleep is essential to the preservation of mental and bodily health.

"We cannot too zealously guard against, or too anxiously watch for the first approaches of this characteristic symptom of incipient brain and mental disorder. Persons predisposed to attacks of cerebral and mental disease ought never to permit a condition of sleeplessness, or even a state of disturbed and broken rest, to continue for many consecutive nights, without seriously considering the state of their health. In the premonitory stage of some forms of acute insanity, the patient is in a constant condition of sleeplessness by night and restlessness by day. His repose at first is broken and disturbed. He slumbers lightly, having only snatches of sleep. If asleep, the slightest noise or ruffle of the bed-clothes awakens him; and when suddenly aroused, he looks like a person whose eyes had never been closed. This is a characteristic and significant symptom of the insomnia of incipient insanity." (Winslow on the Brain and Mind.)

This condition may vary from a simple state of wakefulness to one of persistent insomnia, and may result from exceptional causes—the accidents of life rather than the daily habits. Such are an additional and unusual amount of labor, unexpectedly thrown upon the individual, from which he cannot escape; or it may be the overpowering influence of some emotion, as from the illness or loss of a friend, or the worry that comes from the sudden destruction of ones hopes or prospects in life. In one female patient the state of sleeplessness arose from a severe shock which she had received, consequent upon finding her husband, in the middle of the night, dead by her side, he having retired to bed apparently in excellent health. Again there may be no mental or physical cause apparent, sufficient to ac-

count for the disturbance of sleep, but this seems to be the earliest of a series of conditions which may gradually culminate in open insanity.

Persons actively engaged in literary pursuits, whose occupations absorb a large amount of nervous energy are subject to conditions of insomnia, and instances are known where this would continue for weeks. Boerhaave is recorded not to have closed his eyes in sleep for a period of *six* weeks, in consequence of his brain having been overwrought by intense thought on a profound subject of study; and a case is published of a deranged person who was not known to close his eyes in sleep for the period of three months. It is difficult to form an idea of the tenacity of sleeplessness in the incipient periods of insanity; complete sleep among the insane is seldom observed, except in confirmed dementia, and in melancholy with stupor; even in convalescence, patients will often complain of inability to sleep.

"The pathological condition of the brain may account for this condition of sleeplessness, but in many cases the insomnia seems to arise from a complete absorption, abstraction, concentration of the thoughts and pre-occupation of the mind, in some terrible and fearful form of illusion, or frightful type of hallucination. Under these circumstances the patient is afraid to close his eyes, from an intense fear of falling a prey to the horrible phantasms created by his morbid imagination, and which he imagines follow him in all his movements. The patient so afflicted declares he will not sleep, and resolutely repudiates and perseveringly ignores all disposition to slumber. On many occasions he absolutely refuses to go to bed, or to place himself in a recumbent position. He will battle with his attendant if he attempts to confine him to bed. He insists on remaining in the chair, or standing in an erect position all night, and often determinately walks about the room when those near him are wrapt in profound repose. The hallucinations appear to be most exquisitely and acutely vivid when the patient is placed in a recumbent position, on account, it is conceived, of the mechanical facilities thus afforded for the blood gravitating rapidly to the head." (Winslow on the Brain and Mind.)

We often find disturbances of other functions, and the following combination of symptoms, when not otherwise fully explained, should receive attention as indicating the danger which threatens. There is indigestion and loss of appetite; with pain, eructations, flatulence, heart-burn, and offensive breath. The circulation is disturbed, the heart beating irregularly, or with diminished force, and the pulse is increased or lowered in frequency. There are flashes of heat, alternating with chilliness and coldness of the extremities. The skin is harsh and dry; the bowels constipated; there is usually loss of flesh which may extend to emaciation, and the whole organism sympathizes in the general depression.

There is another array of symptoms, in part the opposite of that described, which also frequently precedes an attack of insanity, especially when it is rapid in its access. The heart's action is increased in force, the pulse is full and strong, the face flushed, the eyes injected and the temperature slightly elevated. The appetite may be unaffected, or even ravenous, but there is usually loss of flesh. In this condition there is marked increase in the activity of the vital functions, manifested more especially in the circulatory system. This combination of symptoms may furnish a warning of approaching disorder of the brain, usually of a congestive or hyperæmic character. It is however, so frequently found in the early stages of febrile disease, that its real significance as an indication of insanity may easily be overlooked or misinterpreted.

Headache.—Disturbances of sensation not only occur as premonitory symptoms, but often continue as serious symptoms of insanity throughout its course. Among the most frequent of these is headache. This is usually described as a dull, aching sensation; but sometimes as a sharp, acute pain. It is often accompanied by a feeling as if a band was drawn tightly about the head, or as if the hat were to small; or again, there is a sense of pressure as if the brain were too large for the skull. Some complain of a throbbing of the arteries; others of a singing or roaring in the ears or of the noise of falling water. In other cases there is a feeling of excessive heat, or of a crackling, hissing sound, like that made by fry-

ing fat. These last sensations are more often referred to the vertex, and occur in the nervous and excitable, especially in women. Romberg says that with the exception of atrophy, none of the diseases of the brain occur unaccompanied with headache. Moreau, describing carefully the different sensations, speaks especially of the heaviness of the head; of its being painful and feeling as if screwed in a vice; a vague indescribable pain was felt in the frontal and occipital regions; and one patient felt as if a double current of warm and cold water was flowing through his brain, which filled the cranial cavity almost to bursting. Others feel nervous shocks similar to those of electricity. The pain in the head is located most frequently in the frontal and temporal regions, and next in order in the occipital, and is produced by disturbances in the circulation of blood in the meninges. These abnormal feelings are frequently the cause of the sleeplessness.

Peculiarities of Speech.—In some cases of insanity the tone of voice and peculiarities of speech will attract our attention. Given to man for the purpose of expressing his thoughts and affections, it may disclose the character and degree of the mental disturbance of him who is deprived of reason. Some persons will speak snappishly, sharply and quickly; this is especially the case in incipient mania; while in the fully developed attack, the words and phrases flow from the lips without sequence or order, but with an astonishing volubility. The voice, at first shrill and piercing, soon becomes hoarse and harsh from its constant exercise. Morel refers to a case in which the patient was subject to dangerous periodical attacks of violent homicidal delirium. His relations always knew when the maniacal crisis was about to occur from a singular alteration that took place in his voice. It had at these periods a bell-like sound. He spoke in what is designated by French pathologists, "Voix de Polichinelle," or Punch's voice.

In acute melancholia the voice assumes a grave and solemn, or even a querulous tone; and when there is associated a condition of stupor, the voice is low, feeble and as if muffled; the words being uttered with the same slowness and hesitation that marks all the other actions.

The characteristic speech of general paralysis will be noticed more particularly in the chapter devoted to that form of insanity. Guislain makes the following observations about the morbid vocal phenomena associated with insanity:—he says: "The speech is altered from the natural tone and style; the articulation becomes embarassed. It is not so distinct as usual, or it is clipped, or hurried, or weak, or too emphatic, or prosy, or drawling. Some words are cut short like a drunken man's, or single words are repeated hastily, or a syllable of a word is repeated, or there is a difficulty in uttering certain letters, such as t's and r's, or words requiring an emphasis, or when several consonants come together. At times the patient stammers and seems to be at fault in finding the proper word, expletive, epithet or phrase, which in health he was both apt and fluent in using; or it may be that instead of being cautious and steadied in his speech, he is all of a sudden voluble, redundent, and profusely garrulous. But at other times the speech is perfectly natural in utterance, and rational in what is said, and yet the patient is deeply attainted with insanity all the time. There shall not be a single unreasonable or ill-spoken word uttered. But at the same time there is a retired, reserved manner, a slinking out of sight, a refusal to speak to an old friend, or answer the queries of the physician."

In some cases of insanity all power of speech seems for a considerable time to be lost. Insane patients have been known to continue for years without uttering a vocal sound. This does not arise from any paralysis of the organs of speech, but it is owing to the mind being intensely absorbed or preoccupied in the contemplation of predominant insane ideas. Dr. Forbes Winslow speaks of a man who was for fifty-two years insane and had not spoken for thirty years. When perseveringly questioned he would give a kind of grunt and run away. About fifteen days before his death, this patient recovered the use of his speech, and answered perfectly well all questions put to him.

Appetite and Digestion.—Disturbances of digestion are generally present, especially at the beginning of an attack. This is so often the case that Pinel said that the seat of insan-

ity should always be sought for in the region of the stomach, and that the disease spread from there as a centre.

During the first part of an acute attack of mania, food will often be refused from an inability on the part of the patient to fix the attention long enough to eat; or if food is taken it will be by snatches and without thought; digestion will take place imperfectly; the tongue will be furred, and the bowels constipated. At a later period the appetite will be good, and food easily digested; the assimilative process going on rapidly to compensate for the increased waste of tissue.

The melancholic digests food slowly; he eats but little and requires urging; either from the depressing influence of his false conceptions and fears, or from the general inertia pervading his whole being. It is among such patients that we find persistent refusal to eat, and are forced to use artificial alimentation.

In dementia and general paralysis, where all intellectual force is lost, the digestive functions seem to survive untouched, and the patient seems reduced to the animal level; the appetite is excessive and is not fastidious either as to the quality or quantity of the food taken.

Constipation is a very common symptom in all forms of insanity, but especially in melancholia and general paralysis. It seems due to a torpor of the liver; to a want of contractility in the intestinal walls, and a decrease in the secretions.

It is considered an unfavorable symptom if the patient gains in flesh without a corresponding improvement in the mental disturbance.

Motor Disturbances.—Muscular restlessness is often present, and may be manifested either in localized movements of the extremities, or in the more general movements of the whole body. These movements with the maniacs are usually without order or purpose; such patients feel an irresistible need of changing position, of running, leaping, turning somersaults and the like. This mobility may vary from slight twitching of the muscles to the most incessant and extravagant motions. At the same time the mental confusion and disorder is equally pictured out by the gestures and physiognomy.

Tears are mingled with smiles; songs with oaths, and the muscles of the face, especially those of the mouth, are twitched convulsively. The hands or feet may be kept almost constantly occupied during the waking hours in the repetition of certain movements, while the abstraction of the individual gives them the appearance of being unconsciously or automatically performed. Again the person may move restlessly about without any apparent purpose or design, and without being able to assign any cause further than a sense of uneasiness or discomfort. Indeed in many of the acute cases of insanity, it only requires that we should see the attitude, gestures and movements of the patient, to enable us to diagnose the particular variety before us.

In melancholia an opposite condition exists, in which there is not only a disinclination to muscular movements, but action, both mental and physical, is performed, if at all, by a strong effort and the direct exercise of the will. The loss of control over muscular movements, indicated in these conditions and that shown, though in less degree, in the irregular twitching or jerking of the muscles of the tongue and of those about the mouth, are often important aids in diagnosis.

Mental Changes.—With these changes in the physical system, and preceding the full outbreak of the disease there are necessarily associated disturbances of the mental states. The earliest are to be found on the side of the emotions. These may be slight, amounting only to an exaggeration of the ordinary mental feelings; or they may be more marked and the inclination to tears or laughter may be yielded to in spite of all effort. This disturbance of the emotions frequently takes the form of depression. There may be loss of spirits or a shading off from the natural cheerfulness of disposition, noticeable to friends and at first fully appreciated by the patient himself. Often he complains of being very ill, that he is losing his senses, and asserts that his mind is not his own; When rallied a smile may for a moment light up the countenance and dispel the gloom, but a relapse soon follows. We find, too, an acute morbid sensibility, physical and mental, together with a difficulty of fixing and concentrating the atten-

tion; investigation will often show that long before any mental disease was apparent, they were subject to fits of apathy, had been in the habit of sitting for hours together in a state of moody abstraction, or deep study, and this too, at a time when they were neglecting important duties.

There are forebodings of some indefinite, indefinable evil impending from which no way of escape lies open. Then commences an introspection; all the thoughts are turned inward; all the acts of life are subject to a review and scrutiny more severe than by the most unfriendly tribunal. The judgment rendered is always adverse and self-convicting.

"Upon analyzing the patient's antecedents still more closely, it will perhaps also be found that, for a long period, there has existed much irregularity and absurdity of thought, eccentricity and singularity of conduct. He has been considered as an oddity in his family, being rarely seen in the domestic circle. When his friends and relations are engaged in social union and converse, he retires quietly to his own room, where he is discovered abstracted, brooding and uttering nonsense to himself. At other times he is forward and obstreperous, loud and vociferous, wild, ungovernable and untrainable. On these occasions the eyes exhibit a bright, brilliant aspect, and the physiognomy is lighted up by an unnatural degree of intelligence. At other times, the patient is restless, abstracted, and moody during the day, and at night slumbers and sleeps uneasily, often, when awaking, complaining of headache, mental confusion or vertigo. During his sleep, he is occasionally subject to slight attacks of muscular convulsion, somnambulism, and temporary illusions of the senses. He is liable to frightful and distressing dreams. All these symptoms are often indicative of the commencement of organic disease of the brain, as well as alienation of the mind.

"In the early period of insanity the most material elements of character undergo strange tranformations. A person naturally remarkable for his caution and circumspection becomes reckless, extravagant and prodigal. If noted for his preciseness he exhibits great carelessness and negligence. If gay and communicative, he is sullen and morose. If previously

neat and particular in his dress, he becomes slovenly, dirty and indifferent to his attire. If timid, he is brave, resolute, overbearing and presumptuous. If kind, affectionate and gentle, he is rude, austere, irritable and insulting in his intercourse and communications with others. If benevolent, he becomes parsimonious and miserly, hoarding up with the greatest care the smallest sums of money, sometimes under the insane apprehension that he will eventually be obliged to go to the workhouse. If, when in health, the patient is known for his attention to his religious duties, he is, when insanity is casting its dark shadow over his mind, sadly neglectful of them, not paying even decent respect to the ordinances of religion. The man of business, who never, when well, was found absent from his counting-house, or known to neglect his vocation, now shows great indifference to his affairs, and refuses to converse about them." (Dr. Forbes Winslow, *Brain and Mind*, p. 101.)

In the direction of this general depression, and partaking of its character, is the development of scruples of conscience. These may refer to the performance of duty toward God or toward man. They sometimes lead to an unhappy zeal in the observance of religious rites and ceremonies, and to self-accusations of intentional wrong, if not of criminal action, in the simplest affairs of life. This occurs alike to those of the most exemplary lives, and of undoubted Christian faith, and to the wicked and depraved. It is not a matter of surprise that when this condition is not recognized as dependent upon disease of the physical organism, the spiritual aid of the minister should be invoked, rather than the more material aid of the physician; or that insanity should be considered as a disease of the spiritual nature. Dr. H. Tuke says upon this point: "Sudden and extraordinary scruples should also excite our attention and concern, indicating as they frequently do, latent brain mischief, and a twist in the emotions which, although seemingly leaning to virtue's side, may nevertheless be pure delusions, simulating conscientious duty, and leading the misguided fancy into courses of action which, if the brain fog is ever dispelled by the sun of returning health, are remembered with bitter but unavailing regret."

Another indication of commencing insanity may be manifested in a change of conduct, in the direction of an unnatural indecision of purpose. "The clothing to be worn, or the food to be eaten, or any of the minor affairs of every-day life, which are ordinarily decided without a thought or question, then become subjects of serious consideration, and are magnified to a degree out of all proportion to their significance." Whatever course may finally be decided upon is soon given up for another, which in time makes room for some new line of conduct. The vacillation and uncertainty thus exhibited may be in strong contrast to the ordinary stability of purpose and character.

A change in disposition without sufficient rational cause may have the same significance. The naturally amiable and gentle may become irritable, morose and fault-finding. This change is manifested first toward the members of the family and intimate associates, and is concealed from ordinary or casual acquaintances. It however gradually gains more complete control and affects all the relations of life.

Unfounded suspicions and jealousies, in the beginning vague and shadowy, give rise to a belief in the existence of a general spirit of opposition to the plans and purposes in which he is interested. At first they are concealed or reluctantly expressed, and easily removed by appeals to reason. Eventually they become attached to individuals, and being more fixed in the mind, often take the form of hatred and opposition to the most loved relatives and friends.

Insanity often manifests itself in a morbid *exaggeration*, a diseased *excess*, of normal healthy mental conditions. Upon this point all writers lay much emphasis, and Dr. Winslow says: "The naturally timid and reserved man shuns society, isolating himself altogether from the companionship of his family and friends. The bold man is boisterous, presuming and noisy. The courageous, officious and talkative. The strictly conscientious person exhibits an unhealthy exaltation of conscience respecting his moral, social and religious duties, and, when insane or becoming so, will manifest the acutest misery, at the notion of thinking or doing anything, in the

remotest degree, at variance with his strict and literal interpretation of Holy Writ."

An unnatural buoyancy of feeling or levity of manner, in contrast to former habit and disposition, sometimes indicates the departure from mental health. Other early changes may also show increased mental activity which takes the form of exaggeration or exaltation. Such symptoms are serious, and especially so when alternating with periods of depression. Regarding the diagnostic value of this state of increased mental activity, Dr. Tuke says: "It is most important to remember that exuberant spirits, mental exhilaration, loquacity, when unusual to the individual, are fully as serious indications as the opposite state of mind."

Acts of the Insane.

Dr. Blandford says that as the discovery of certain delusions leads us to inquire whether the individual has done, or attempted to do certain things, so the acts in turn will help us to discover the delusions. Many acts which, taken by themselves, would not prove insanity are, when explained or justified according to the insane ideas of the individual, valuable evidence of his state of mind. But not half of the insane acts of a person laboring under general mania are really the offspring of his delusions; they represent the overflow of insane energy, and are often, so far as we can judge, motiveless and aimless—the mere convulsive expressions of disordered nerve centres. Even the acts which are the offspring of delusion are not such as are the logical outcome of it, or such as are adapted to the attainment of the delusive aim; they are the results of insane reasonings from insane premises, or of impulses which spring up in minds without being connected with the existing delusions.

It is a common though erroneous idea that the acts of the insane are without premeditation, so that the plea of insanity is received with distrust, when it is shown that a crime has been planned and carried out with judgment and caution. Although, as a rule, the acts committed by the insane are un-

premeditated, we meet with a large number of cases in which premeditation is clearly shown, and yet no doubt can exist as to the insanity.

It is quite common to find insane persons stripping stark naked, and in this condition they will run out of the house, regardless of the weather; summer or winter, rain or shine, day or night, and the restraining influences of decency seem totally absent from their minds. "Putting aside all the cases where patients have gotten rid of their clothes in a struggle, we find that they strip themselves from a desire to destroy everything within reach, or from a wish to get rid of the feeling of heat or restraint due to the clothing." They may also be actuated by delusion, thinking the clothing filthy or poisoned, or may ruin it from malice and mischief. One case was that of an organist with delusions of persecution; being troubled with an eczema which was worse at night; he believed that his enemies had persuaded the officers to medicate his sheets and clothing, and he complained most bitterly. I remember one young man, an epileptic, whose insanity took a religious form, so that he was very fond of reading the Bible and repeating its teachings to those around him. One day he made his appearance in the gallery or ward of the hospital in a complete state of nakedness, and told the supervisor that he had been told from above to lay aside his clothes and white robes would be furnished him, and thereafter his name was to be "Frank, angel." A few hours afterwards this state of exaltation ended in an epileptic fit.

In acute delirium, acute mania and melancholia, it is usual to find patients stripping off their clothes and tearing them to shreds. Sometimes they will refuse to assign any reason for such conduct, and it seems to be merely the result of a spirit of destructiveness, or of the high state of nervous excitement; a state, such as we see in anger, requiring that the mental excitement shall vent its force in some external act.

Imbeciles, idiots and the chronic insane will strip themselves, destroy their clothing, smash windows, and befoul their beds and rooms from mere wantonness. Or as one young woman told me, because she could not help it; she knew it was wrong,

but she felt driven to do these things. In some cases there will be a return of such paroxysms with each menstrual period.

For mild cases the use of a "muff," or "camisole" may succeed in checking this propensity, but in most instances the proverbial insane will, and insane cunning, will manage to pick even these strong garments with tooth and nail, and the only safeguard is close attendance of one or two persons.

The propensity to remain naked is frequent, and is due to several causes: it is generally found in connection with hallucinations of smell, or of sensation; also as a result of delusion. "A young lady may desire to live in the primitive simplicity of Paradise; or she may think her body invisible and wish to remove the gross envelopes which would render this corporeal translucency of no avail; or, clothing may be thrown off and destroyed out of mere mischief and destructiveness; or, the sensibility of the skin may be greatly enhanced, and the warmth and friction of clothing may cause much annoyance." (Bucknill.)

Indecent exposure of the person and masturbation are frequently met with, both with the sane and insane. They are not infrequent symptoms in the early stages of epileptic insanity, general paralysis, and in those cases which are passing from chronic mania into dementia; we also find such conditions attending the mental disturbance consequent to cerebral hæmorrhage. In these last cases the patient will seem almost entirely unconscious of the exposure.

A great deal is said in stories and novels about the extravagancies of dress and general appearance in which the insane indulge; and excellent delineations of these may be found in the works of Shakespeare and Sir Walter Scott.

The clothing and hair; the condition of the face and hands; the various articles worn as ornaments; the habits, speech, methods of eating and drinking; all these may attract our attention in a thousand different ways. The man who is insane may stuff his pockets with pebbles, sticks, bits of paper or leaves, and regard them as very precious. His eating and drinking may attract our notice. He may eat voraciously or very little, or refrain entirely from food. "He may eat only

such food as eggs, from fear of being poisoned; or only the food cooked by himself; or he may require others to taste everything before he partakes of it. He may eat filth of all kinds; in fact, there is nothing too nasty to be carried to the mouth by the insane in all stages of the disease. Such acts are presumptive evidence of derangement of mind, generally of acute mania or dementia. Absolute refusal to take food would also warrant us in presuming that a person was not in his right mind."

Restraining Apparatus.

It may be well to devote a portion of this chapter to explaining and describing the various kinds of mechanical restraint in more common use in hospitals for the insane. Some of its forms, with such modifications as the case requires, will at times be of service to you in private practice. I shall consider the vexed question of *restraint* or *no restraint* in another place.

Restraint implies first: the confinement of one or both hands so as to prevent their use to inflict injuries or abuse on themselves or others; or the destruction of furniture or clothing; or the denuding or exposure of the person. Second, confinement in a sitting position in an ordinary chair or settee, or in bed in a horizontal position.

Seclusion signifies that on account of noise, destructiveness or violence, it is found necessary to place the patient in a room alone. This room may at times be padded to prevent the patient from injuring himself; and it may be darkened for the sake of its quieting influence.

The first method of confinement is effected by the following means: 1. By a camisole, or waist, laced up the back, with endless sleeves, attached in front or behind as the case may require, to a loop on the waist. This article is made of strong washable material, such as heavy cotton-cloth or bed-ticking. The hands are entirely free within the sleeve, and the healthful action of the muscles of the arms, shoulders, chest, etc., is not interfered with.

At the State Homœopathic Hospital for the Insane at Middletown, New York, a new camisole for use in summer has been devised by Dr. N. E. Paine, late Assistant Physician. "It consists of a jacket made of heavy twine, with large meshes something like a fish-net; the cords, however, are fastened at the points of intersection by being wrapped and tied with soft thread, thus avoiding the knots that would be occasioned were the fabric wrought after the manner of netting. The sleeves are made of light but strong canvas and of sufficient length. This jacket forms a useful means of restraint, and is much cooler for the patients than the one in ordinary use."

A second means of restraining the hands is by the use of simple padded leather wristlets, moving on a belt about the waist.

Thirdly, by a leather muff and wristlets, which is an addition to the second mode of a leathern shield covering the hands. This method is resorted to when the others fail to restrain. These three modes of restraint are used in cases of suicidal disposition, when it is so persistent and determined that watchfulness will not insure the necessary safety. When there is determined and persistent disposition to self-mutilation or exposure, or denuding of the person and self-abuse, as well as when there is great destructiveness or violence towards others.

Lately at the Homœopathic Asylum, a pair of restraint breeches have also been devised for the benefit of masturbators. These are also made of canvas, fitting snugly to the body and limbs, secured around the waist with a strap running through a continuous loop, and fastened in the rear by a lock-buckle. In front is a block-tin, semi-cylindrical receptacle for the parts to be protected. This is strongly riveted to the canvas pants. The apparatus was first made for and used upon male patients. Subsequently, however, a similar apparatus was gotten up for females, and both have proved quite effectual for the purpose designed. Dr. S. H. Talcott says that in several cases marked improvement has followed the application and steady use of these protective breeches. They at least prevent a continued series of excitements, and consequent exhaustion to the nervous

system; and thereby afford appropriate remedies a favorable opportunity to act.

Confinement to a seat is effected by passing a leather strap about the waist and attaching it behind to a chair or settee. This is resorted to in controlling cases of great restlessness or high excitement, with a view of husbanding the general strength and promoting calmness. Many cases, especially in the acute stages of mania, if left to themselves, would soon exhaust their vital powers by excessive muscular action.

Confinement in bed in a horizontal position is effected by two methods: first, by an apparatus known as a bed-strap, consisting of a leather cushion about eighteen inches wide and twenty inches long, with three straps at the top, one about the middle of it, and two at the bottom. The central top strap is fastened to the head of the bed, and the two bottom ones to the foot; the patient is then placed on the cushion, the middle strap is passed about his waist, the two straps at the top passed forward diagonally across the breast and buckled to the waist-strap, thus confining the body of the patient to the cushion. Two bights move on rings on the straps attached to the foot of the bed. These bights are buckled around the ankles with a strap attaching them to the foot of the bed, to regulate and in a manner restrain the motion of the feet. This instrument of restraint is more formidable in description than in fact. It is simply an apparatus confining the patient to the bed, allowing some motion, such as drawing up the feet, turning on the side, etc.

The other method is a covered bed or crib. I have never used this myself, but many asylum superintendents prefer it to the bed-strap. This bed is constructed like an ordinary child's crib, with the addition of a slat cover. This arrangement does not interfere with the movements of the patient in rolling from one side to the other, or moving the limbs in any way. It merely prevents the patient from sitting up or getting out of bed. As the sides and top are open, the air circulates as freely about the body of the patient as in an ordinary bed. "Restraint in a horizontal position is used in cases of exhaustion, when the physical health of the patient demands that he

be kept in bed. The medical thought involved will be readily appreciated. Sick people ordinarily lie in bed under the advice and direction of the physician, but the same class when insane will not always do so, and these arrangements are to effect this end."

The above description of the instruments used in restraint is largely taken from the Report of the State Asylum at Utica, New York, for 1863, by Dr. John P. Gray.

Artificial Feeding of the Insane.

Among the most troublesome circumstances that you will meet, either in asylums or general practice, are those cases when the patients for a longer or shorter time persistently refuse to take food, and where, in consequence, recourse must be had to artificial feeding. When we consider the large number of patients who, habitually or otherwise, in one or the other stages of insanity, refuse food, the aggravation of the disease, the obstacles created to the administration of remedies, and the danger to strength and life produced by such a cause, it is a matter of surprise that so little attention has been paid by the general practitioner to the evils of abstinence and the measures to be taken for its relief.

Some years ago it was estimated that one-ninth of the insane refuse food. Whether we accept this estimate as true, or consider it to be exaggerated, there is no doubt that the cases of melancholia combined with abstinence are now more numerous than formerly; and even the tendency to refuse food, whether associated with delusion or despair, fury or abstraction, is more generally met with.

Refusal to take food is not a symptom confined to the subjects of any one form of mental disorder, but by far the greater proportion are the acutely melancholic, in whom the nervous system is so depressed and lowered, that the natural craving for food is altogether absent; those in whom the mind is so pre-occupied with the thought of its miserable condition, that the feeling of hunger is entirely in abeyance and unheeded in the presence of a more severe, though it may be groundless, source of uneasiness and anxiety.

Deliriums, more or less fanciful and absurd, are frequently associated with refusal of food; and, though in many cases, they arise from abnormal sensations, the result of simple dyspepsia, or more grave disorders, and thus are, as it were, the secondary, but not the less important cause of abstinence; in others they have no foundation in digestive derangements, and are the sole and primary cause. For example, one man abstains because he has no money to pay for what is offered him; another, because he does not work and consequently does not deserve it; a third asserts that he has been dead for years and has no further need of food; a fourth affirms that everything set before him is poisoned, and prefers to suffer the pangs of hunger rather than give his enemies the satisfaction of ending his days; while a fifth is in a constant state of alarm and terror, and paces the room from end to end, exclaiming that the last day is at hand and the world is to be burned up; in a case of puerperal melancholia, recently under my care, the patient thought it wrong to gratify her appetite, as it would draw her attention from the affairs of religion, so she obstinately refused food, and I was obliged to feed her by force on three successive days.

"Individuals will partake of certain meals, or certain qualities of food only, at particular times, or by stealing; will take portions of each meal, but never a full meal; will take a small portion of whatever is presented to themselves or to others; will prefer fluids to solids or vice versa; the servants allowance but not their own."

But when the digestive disturbance is the primary cause of the abstinence, the delirium generally has reference to the uneasiness and pains experienced; one fancies that his throat is closed up, and therefore he cannot swallow; another says that it is absolutely impossible for him to take anything, and that he already has more than he can contain, though he may have been fasting for days; while another fancies that there are serpents in his stomach, which can only be gotten rid of by starving. In many of the latter class, the most insignificant feelings are magnified and dwelt upon, and their importance exaggerated to an extent greater even than among hypochon-

driacs; but when the delirium has reference to the patient's sensations, there is reason to suspect the existence of some organic or functional derangement of the digestive apparatus.

"In some cases, abstinence from food may depend entirely upon organic disease of one or other of the organs more immediately concerned in the process of digestion, as for example, the stomach or liver, without the existence of delirium; and, in such cases this symptom may be ascribed to a wrong cause, owing to the mental state of the patient, and food be forced upon him, which, if his mind were not affected, would not be so earnestly insisted upon. But these diseases, though their diagnosis is often extremely difficult, from the inability of the patient to communicate his subjective symptoms, can never be long overlooked, if the objective are duly attended to; and even when such diseases are present it is necessary to administer sufficient nourishment and suitable medicine, so as to prolong life as far as possible."

Some from utter stupidity and helplessness are unable to feed themselves, or even swallow what is placed in the mouth; such are those laboring under melancholia with stupor, and some of the cases of acute dementia; while others offer a strong and determined resistence to being fed. Occasionally an acutely maniacal patient requires to be fed with the stomach pump, in order to ward off the great prostration and exhaustion which are sure to follow after the violence of the mania has subsided, and which are best met by a liberal supply of food administered during the attack. From whatever cause food is refused and life thereby endangered from inanition, the stomach pump must be used, but not before all ordinary means for inducing the patient to partake voluntarily have been tried in vain. Its employment is not to be long delayed when necessary; nor, on the other hand should it be resorted to too hastily, and lead us to dispense with the tact and patience which both attendants and physician should use.—"If a patient refuses food from some unimportant reason or from pure obstinacy, and if it is considered that one application of it will succeed in correcting this perversity for the future, then it should be employed; but sending food directly into the

stomach without its undergoing the natural process of mastication, or at least passing through the cavity of the mouth, where it is mixed with saliva, and prepared for its further digestion in the stomach, is a proceeding which the extremity of the case alone renders necessary and justifies. No doubt, food in the stomach for sometime after it has entered it stimulates a flow of saliva, which is swallowed, and is made available for the purpose of digestion; but this only to a limited extent makes up for the ordinary and thorough mastication of solid food, and its due mixture with the secretions from the salivary glands of the mouth."

One of the most characteristic symptoms of long abstinence from food is a peculiar and disagreeable odor of the breath. This is so peculiar, and so different from the ordinary offensive breath of dyspeptics that it can readily be recognized by any one who has met it a few times. It is as characteristic as the smell from small-pox, diphtheria or measles, and arises from the altered state of the secretions of the stomach and mouth. "The mouth becomes clammy, the teeth become foul, and in the worst cases are covered with sordes; the tongue is coated with a thick white fur of old epithelium, little saliva enters the mouth, and what does so escapes by the lips. The offensiveness soon disappears in most cases, if a regular and sufficient amount of nourishment is administered, without the aid of medicine at all,—a circumstance which shows that it mainly arises from the want of food, and the consequent state of the mouth and the body generally, in which the wasting process far outstrips and exceeds the renewing."

When we have tried persuasion, coaxing, bribes and threats even, but all in vain, our first resort is of course to the spoon, and to the various small feeding-jugs sold at all china stores; and we will attempt to make our patient swallow by compressing the nose, and we may in simple cases succeed; in other cases we will fail and be obliged to deliver the food directly into the stomach, either through the nose or the mouth; and the question arises: How soon shall I attempt this? How long is it safe to allow the patient to abstain from food?

Dr. Luther Bell, former Superintendent of the McLean Asy-

lum, at Somerville, Mass., said: "In those cases of *mere will*, where the patient absolutely refuses, with the calculation that he will compel his release by endangering his life, when the health and deposition of fat are average, perhaps it would be a safe general rule to allow three days, that is seventy-two hours, to elapse before any force be used." But his opinion seems to have been somewhat influenced by the presence or absence of the brown crust upon the tongue, the sordes on the teeth, the chapped lips, the blush on the mucous membrane, and especially the fetid breath. Dr. Tuke limits the delay to from three to four days. Dr. Bucknill says that the feeding should be resorted to early, and Dr. Gray of the Utica Asylum prescribes feeding after the refusal of one meal in the weak and three meals in robust patients.

Dr. W. A. Browne, consulting physician to the Crichton Institution, and ex-Commissioner of Lunacy for Scotland, says that in his own practice he never waited for the appearance of any critical signs, but feeds artificially after the expiration of forty-eight hours—in other words, when six meals have been positively or pertinaciously refused. This calculation was not arbitrary, but the result of his experience: first, that after this period, whether abstinence were voluntary or involuntary, emaciation and debility increased with great rapidity; second, that digestion and assimilation were tardily and imperfectly performed; third, that mental weakness increases to a degree of temporary dementia, and that in proportion to this enfeeblement the moral impressions generally produced by the preparations for and the process of feeding, were in a great measure lost or impaired. When great debility existed, this step was taken even earlier. Nor should we be swayed from our purpose by those cunning concessions and evasions which the insane essay when they take a portion of a meal, pick, dally, dawdle over what is presented; when they appear to masticate, but do not swallow; when they deceive; distribute the food to others, to pets, destroy or conceal it, even having recourse to indecent practices in order to defeat us. These subterfuges are numberless, and, if successful, may reduce the quantity taken so low, that life and strength and intelligence may all

be ebbing imperceptibly during the delay, and in some cases gangrene of the lung may set in. You should be on your guard against those patients who, by rumination, can partly disgorge the contents of the stomach; and Dr. Browne reports the case of a gentleman transferred to his care, pale, skeletonic and exhausted, from a well-conducted home, where his anxious friends saw him take abundant meals, but at last discovered that the inefficacy of these was explained by the patient retiring to the water closet, tickling the fauces, and by this means rejecting all that he had swallowed,

Having determined upon compulsory feeding, the next step is to select the safest, best and most irresistible means to accomplish our purpose. The naso-pharyngeal tube has lately been recommended, because it enables the operator to escape all the obstacles offered by lips, spasmodically closed jaws, raising of the tongue, etc. The use of this tube was first urged by Dr. Harrington Tuke, and is now generally adopted in France, but it has some weighty objections, principally due to the stiffness of the tube. Great irritation is occasionally the result of passing any pipe through the nostrils, and then from the narrowness of the tube and its orifices very thin fluids only can be given. Again Esquirol, Leuret, Trelat, Voisin and others state that its use gives rise to grievous disasters, such as the infliction of wounds in the soft palate, hemorrhage, entrance of the glottis, pumping of fluids into the air passages, and perforation of the œsophagus. Voisin also accuses it of causing abrasion, ulceration and fracture of the turbinated bones, penetration of the larynx, and as being useless when there is narrowness, deformity or disease of the nares. It is fair to state, however, that Griesinger expresses a decided preference for the naso-œsophageal sound, founded upon its use for twenty years, during which no accident occurred; and at a late congress of Paris physicians the majority of the debaters favored the use of this tube.

Many of the objections to the use of a naso-œsophageal tube are removed by the plan first advocated, so far as I am aware, by Dr. N. E. Paine, late assistant physician at the Homœopathic Asylum for the Insane, at Middletown, N. Y. He says: "A soft

rubber Nelaton catheter is taken. The great difference between it, adapting itself so readily to any curve, and the old-fashioned stiff catheters of Tuke, that remained 'fixed against the cervical vertebræ,' is apparent to everyone. This is now passed through the nose into the stomach, after having been oiled or dipped into the liquid to be given. The nozzle of a Davidson syringe, filled with fluid instead of air, is then inserted into the projecting end of the tube, and the food is pumped directly into the stomach." And again he says: "Its advantages are that the introduction causes no pain; there is no struggling to weary the patient; all the food enters the stomach and none is thrown about the room; respiration proceeds regularly and even conversation may continue without hindrance. The objections to it are those against the much used stomach-tube; while, over that instrument, from the non-necessity of forcing open tightly clenched jaws, and because of the inability of the patient to prevent its passage, it holds a deserved supremacy."

My own experience, both in asylum and private practice, has been exclusively with the stomach-tube, and I have thus far met with no difficulty or seen any ill results. I believe that a similar practice exists in nearly all the British and American asylums; while the naso-œsophageal tube is used mainly in France.

Dr. Browne says: "For forty years I have tried, or seen tried, the various methods mentioned, and have no hesitation in saying that the syringe and elastic tube, introduced by the mouth, when *proper precautions* are taken, is the more safe, more successful, and more easily applied than any other apparatus."

There are different ways of using the stomach-tube, and I shall follow the descriptions given by Dr. Blandford in his work on Insanity, and by Dr. Browne in one of the West Riding Reports, as a thorough knowledge of the details will make the operation an easy and safe one for you.

At St. Luke's Hospital the patient is seated in an arm-chair, and restrained in that position by means of sheets, which render him incapable of any sudden movement, by being passed around the body and legs and then drawn through the arms and legs of the chair. In cases where there is not much resist-

ance offered, this position is, perhaps, preferable to any other, its chief advantage being that there is then little risk of choking, should there be regurgitation of the food while the stomach-pump is being used, as what fluid is returned readily passes out of the mouth, and the patient can again breathe freely; but if the patient is very strong and makes a vigorous resistance, it is almost impossible to hold him quiet in a chair by any means; which, however, can easily be done if he is placed in a recumbent position upon a bed, and held by a sufficient number of assistants, and that without any risk of bruising or inflicting any injury. The great advantage of having the patient completely overpowered is, that there is then no struggling or resistance; and the abdominal muscles being thus set at rest, there is much less chance of vomiting; whereas, if there is much struggling, the breath is held in, the diaphragm and abdominal muscles are in a state of tension, and what is forced into the stomach by the pump, is as speedily rejected.

The patient being in position on the back and held by attendants, aided by sheets or rugs thrown over the body, and upon the edges of which they can kneel; the mouth has to be opened by some kind of gag. The gag most frequently employed is the one with which the ordinary stomach-pump case is furnished, and consists of a straight piece of wood with a hole in the centre of it, through which the tube is passed. One objection to this gag is, that it is often very difficult, almost impossible, to insert it in the mouth; and another is, that the tube has to be passed, so to speak, in the dark. It is pushed through the hole in the gag into the back part of the mouth, and as very little inclination can be given to it, it must be steadily thrust on, until it finds its way into the œsophagus, after being bent against the posterior wall of the pharynx, a proceeding which is apt to excite retching and contraction of the pharynx, and so render the passage of the tube still more difficult. When obtainable, it is best to use one of the varieties of the expanding screw-keys. These instruments are light and strong, and the screw should be tolerably quick in its action, not for the purpose of forcing open

rapidly jaws that are firmly clenched, but for the purpose of quickly taking advantage of any voluntary separation on the part of the patient. An instrument of this kind is easily applied, as it can be inserted wherever there is an open space between the teeth, and the mouth is then readily opened by turning the screw, no matter with what determination it is shut. A short time ago, I made use of a simple wedge-shaped piece of hard wood, and it answered excellently well, although a little more difficult of introduction; it may be inserted flatways as a wedge, and then watching your opportunity, you may turn it on the side and have ample room; care should be taken to insert it well back between the jaws, or the efforts of the tongue may push it out again. In *all cases* great care should be exercised in opening the mouth, that the patient's teeth are not broken off, as might happen if too much or too sudden force were used. All this care must be taken by you or your assistants, for the patient will be totally regardless of results in offering all possible resistance.

When the mouth has been opened, the key or wedge should be entrusted to an assistant, whose only duty should be to hold it in place; and there is no difficulty in doing this so long as the head is kept perfectly steady. In this way the greatest freedom is afforded in passing the tube, and the left forefinger may be inserted into the mouth to give the tube the proper curve, and guide it over the root of the tongue, should there be any difficulty in passing it; this ought, however, to be seldom the case, as the passage of the tube is as easily effected as that of the male catheter.

The main points to be attended to in passing the instrument are, that it should be moved slowly and inclined towards one or other of the pillars of the arch of the palate; that special caution should be observed as the cardiac orifice of the stomach is approached; that a candle should be held at the upper extremity in order to see whether air escape or not, that we may be sure not to have entered the air passages; that the tube should not be withdrawn until it be quite emptied, and should be quickly drawn out when supposed to be in the vicinity of the glottis, placing the finger upon the external orifice which has been detached from the syringe, as by the

escape of a portion of ths contents at this time into that opening, accidents have taken place, especially in debilitated and paralytic patients.

The calibre of the tube will depend somewhat on the size of the pump used. Too large a one is of no advantage, and is objectionable on account of its inflexibility and the difficulty with which it adapts itself to the curved passages through which it has to pass, though it may be the safest in careless hands as it cannot enter the larynx or produce laceration so easily. I prefer a medium sized tube, a little larger than a large bougie, having a slightly enlarged or bell-shaped extremity, and two good sized openings on the side near the end. In passing the tube, there is sometimes a little pressure needed to make it enter the œsophagus, on account of its having to follow a slightly obtuse curve, and coming in contact with the bodies of the vertebræ, which become prominent if the head is held too far back.

Instead of using a pump, or metal syringe, a Davidson's syringe may be used to good advantage; in any case being careful that your tube is free from air; and injecting the food *slowly*, watching to see that it is not thrown back by the side of your tube.

The frequency with which your patient will need to be fed, and the amount of food used will of course vary according to circumstances; in most cases twice a day will suffice, using at each meal a pint or so of beef-tea, soup, gruel, egg and milk, etc., but the kind of diet given will, of course, vary.

Cases are on record where life has been sustained eleven years by artificial feeding, and I would urge its use, not merely in cases of voluntary fasting, or when the trachea and œsophagus have been wounded, but when there is any impediment to the act of swallowing of whatever kind.

I have spoken at length upon this point, for it may happen to some one of you, to have your medical career made or marred, by your ability or failure to feed an insane or other patient. Few things will have so great an influence in favor of a young physician as his ability to successfuly deal with such cases as these, and few things are more overlooked in the teachings of the schools.

LECTURE IV.

Causes of Insanity.

The causes of insanity, as enumerated by authors, are so general and vague as to make it a difficult matter to settle in the mind what they really are. The uncertainty springs from the fact that, in the great majority of cases, there is a concurrence of conditions, not one single effective cause. All the conditions which conspire to the production of an effect are alike causes, alike agents, and therefore all the conditions whether they are in the individual or in the circumstances in which he is placed, must alike be regarded as causes. "A complete biographical account of the individual, not neglecting the consideration of his hereditary antecedents would alone suffice to set forth distinctly the causation of his insanity. If all the circumstances, external and internal, were duly scanned and weighed, it would be found that there is no accident in madness. The disease, whatever form it might take, by whatever complex concurrence of conditions, or by how many successive links of causation it might be generated, would be traceable as the inevitable consequence of certain antecedents, as plainly as the explosion of gunpowder may be traced to its causes." The germs of insanity are sometimes latent in the foundations of the character and the final outbreak of a long train of antecedent preparations.

It is common to treat of the causes of insanity as being moral and physical, though it is not possible to discriminate in all cases. When, for example, hereditary taint exists, and is the cause of some defect or peculiarity of character, which ultimately results in insanity, one person might describe the cause as moral, while another would class it as physical. In reality every moral cause operates by means of the physical changes which it produces; and, in the great majority of cases in which the cause has been pronounced moral, there have been some things in the physical constitution by the co-operation of which the result has been produced.

As a predisposing or exciting cause of disease, constitutional defects or instability of elements stands pre-eminent. "If we see a flat, narrow chest in a large organism, and find that this individual is subject to cough on slight atmospheric changes, we are apt to inquire whether his ancestors died of consumption, and find the inquiry usually answered in the affirmative. In this instance we have natural infirmity and instability of lung element, and they lead us to recognize a tubercular diathesis and prognosticate consumption under unfavorable circumstances of life. And, as we know, the poorly-housed and poorly-fed of this class of people almost always die of tubercular disease." The pulmonary manifestations of the diathesis are here obvious; not so, however, if they shall have mainly involved the nervous system. The mental state, the propensities and tendencies, the cerebral premonitions which herald a threatening attack of insanity in individuals tainted with a diathesis, whether inherited or acquired, at any age of life, are subjects still open to research.

The doctrine of heredity of nervous tissue rests upon the same foundation of natural infirmity and instability of nerve element. In regard to insanity this question of heredity is of the highest possible importance. Prof. Maudsley says: "The insane neurosis which the child inherits in consequence of its parent's insanity, is as surely a defect of physical nature as is the epileptic neurosis to which it is closely allied. Past all question, it is the most important element in insanity." He further says: "We have not to deal with disease of a metaphysical entity, which the method of inductive inquiry cannot reach, nor the resources of the medical art touch, but with disease of the nervous system, disclosing itself by physical and mental symptoms. Mental disorders are neither more nor less than nervous disorders in which the mental symptoms predominate, and their entire separation from other nervous diseases has been a sad hindrance to progress." "It is quite true, that when we have referred all the cases of insanity that we can to bodily causes, and grouped them according to their characteristic bodily and mental features, there will remain cases which we cannot refer to any recognizable bodily cause,

and connect with any bodily disease, and which we must be content to designate as *idiopathic*. The explanation of these cases we shall probably discover ultimately in the influence of the hereditary neurosis and in the peculiarities of individual temperament." But in accepting this explanation we must, while admitting the probability of hereditary neurosis, not lose sight of the fact that insanity itself is a special nervous disorder, and may in many individual cases originate in some still unknown morbid process in the brain tissue. It is also evident that we are constantly discovering new structural degenerations of brain tissue, which throw more and more light on causation, and constantly narrows down the class of idiopathic cases.

Speaking on the subject of physical causation, Prof. Maudsley uses the following emphatic language: "I am tempted sometimes to think that no person goes mad, save from palpable physical causes, who does not show more or less plainly by his gait, manner, gesture, habits of thought, feeling and action, that he is predestined to go insane;" and again he says: "It cannot be in the normal order of events that a healthy organism should be unable to bear the ordinary mental trials, much less a natural physiological function, such as the evolution of puberty, the puerperal state or the climacteric change." When, therefore, the strain of grief or one of those physiological conditions becomes the occasion of an outburst of insanity, we must look for the root of the evil in some natural infirmity or instability of nerve element.

It will not do to say that excessive grief, which is a comparative expression as between individuals, because grief influences the physical organization normally, will therefore induce a diseased condition of that organism. Grief may be excessive, intense, prolonged, and yet the person remain sane; and so of the other passions. Can grief cause a mental change, independent of bodily change, and thus under its stress can the mind be overthrown? While the bodily functions are healthfully performed, and the brain properly nourished, and due rest is secured, can any degree of grief cause insanity? Is it not only when the grief is so absorbing as to withdraw atten-

tion from the due care of the body, and the brain is consequently ill-nourished and ill-rested, that insanity supervenes? Only when the moral cause has induced that degree of functional activity and exhaustion, the necessary effect of which is to transform the physiological action into a pathological state, does insanity ensue, and then through the medium of structural change. The factor introduced, therefore, is disordered function or disease of the brain. So of jealousy, excitement in business, politics or religion. These are in one sense moral causes, but as moral influences alone they are insufficient to induce insanity. As remarked by Dr. Amariah Brigham, they must first induce physical disease. Or, in the words of Griesinger, the moral cause is potent "when it has become fixed through the mediation of abnormal functional phenomena."

Whatever may be the remote or inciting cause of insanity, however strongly circumstances may tend to harass, weary and depress the mind, insanity will result only as a consequence of a disordered state of the brain. We may enumerate a wide range of what are denominated predisposing causes, such as heredity, sex, age, nativity, education, social position, loss of friends, property or position, anger, disappointment in love, etc., and yet when we have done all this, we have only shown that in connection with the history of insane persons, we have found facts and circumstances which are also of common occurrence in the lives of those who are not insane. For this reason some psychologists are disposed to deny the force of these agencies as predisposing forces. It is a pertinent question, what value should we give to them; and what relation do they sustain as elements of causation in producing insanity?

As Dr. Maudsley well says: "Not until we apply ourselves earnestly to an exact observation and discrimination of the mental and bodily conditions, which cooperate in the causation and are manifested in the symptoms of the manifold varieties of insanity, shall we render more precise and satisfactory our knowledge of its causes, its treatment and its classification." "How unscientific it appears," he continues, "when we reflect, to enumerate as is commonly done, sex and age among its predisposing causes. No one goes mad because he or she happens

to be a man or a woman, but because to each sex, and at a certain age, there occur special physiological changes, which are apt to run into pathological effects in persons predisposed to nervous disorders. How often it happens that a moral cause of insanity is sought and falsely found in a state of mind, such as jealousy or grief, which is really but an early symptom of the disease."

Griesinger in speaking of the emotional influence in the causation of insanity says: "It may be *direct* or *indirect*. In the first case, the emotions, particularly the passed off psychical phenomena, are the *immediate* originators of the mental disease, inasmuch as they produce a state of intense irritation of the brain which now continues." "More frequently, however, the insanity originates *indirectly* through the medium of a pathological process from the psychical cause, inasmuch as they, in the first place, bring about further deviation from the normal organic processes in other parts, from which the cerebral disease proceeds as a secondary result."

If we consider the fact previously spoken of, that the emotions ordinarily disturb sympathetically, the functions of the organs of respiration, circulation, digestion, and of blood formation, we will understand how these, when long continued and violent, must cause slight disorders of these functions; and those individuals are most easily affected in whom—owing to congenital or acquired disposition—emotions are most easily excited. Very frequently the cerebral disease commences when, after long oscillation, some serious pathological change has gradually arisen in some other organ, and it is easily comprehensible that those consequences of the emotions are most frequent and dangerous in the period of life in which the organism is subjected to the greatest expenditure of force in order to its proper development and further growth, and in which it is generally most capable of disease, viz., at the period of puberty, during child-birth and the climacteric.

As to the manner in which the predisposing moral causes influence the physical system, Griesinger says: "It is by no means rare, after some untoward event which immediately caused disturbance of the cerebral processes, to see the indi-

vidual become again mentally quiet; but he begins to feel ill, to suffer in various other organs, and it is only after years of constantly increasing deterioration of the constitution, owing to the development of anæmia or other chronic disease, that mental disease is established." He says that under such circumstances, emaciation, indigestion, sleeplessness, palpitation, cough, cerebral congestion, nervousness and hypochondria, neuralgias, menstrual irregularities, and various anomalies of sensibility supervene. Tuberculosis, and heart diseases are now awakened or rapidly aggravated, and out of these pathological mediators between first causes and ultimate results, mental diseases proper are finally established.

A nervous child should be placed in a strong minded family,—that is, with those who have the *will* under complete control, never allowing themselves to be betrayed into doubt or vacillation. The melancholy should consort with the cheerful, the unduly hilarious with the more sober minded and sedate; the wandering and vacant should be won to interest by comparatively sensational modes of placing things before them; their perceptive and reflective faculties being alike encouraged. These principles are worth considering, to neglect them is to repudiate the basis of a sound psychology; to study them is, or should be, the power to prevent evil. In a large number of persons the hereditary law is so overpowering and imperious that there seems no alternative but to yield to its behests. "Multitudes of human beings," says Maudsley, "come into the world weighted with a destiny against which they have neither the will nor the power to contend; they are the step-children of nature, and groan under the worst of all tyrannies, the tyranny of a bad organization."

Now when this bad organization involves what Dr. Anstie termed the active or dormant hereditary neurosis; and what we call the insane temperament, the future of its subjects cannot be very bright and cheering. There is about them a want of uniformity; their cranial development is not always satisfactory; the features are irregular, one part of the face being bright and expressive, and another part being very much the reverse. They are given to facial twitchings, an occasional

squint, convulsive movements of the limbs; all the movements are ungainly and lack that muscular co-ordination which is the life of symmetry. In early life they may have stuttered, or had occasional fits, and it is somewhat singular that they may have been unusually stupid or unusually precocious. By only these partitions are the two states represented by the two terms great wit and madness separated. Those who are affected with any form of neurosis are easily thrown off their equilibrium, eager, excitable, impetuous; they are constantly on the *qui vive*. They jump and dance rather than walk through life. The puberty of such persons is premature; the sexual appetite strong, and they are given to habits of self-abuse. "Happily the power of propagation is not equal to the intensity of their passion, and there is a tendency in all faulty organizations to die out and become extinct." I need hardly tell you that marriages with such should in every way be discouraged. It is a dreadful calamity, this repetition of the insane or neurotic temperament.

"It is equally singular and instructive as bearing on the asserted league between a high order of intellect and the neurotic temperament, that the fecundity of both should be defective. England has no Shakespeare, no Milton, no Bacon, no Byron, no Pope, no Newton. Italy has no Dante, no Petrarch, no Ariosto, no Alfieri. Germany has no Heine, no Goethe, no Schiller. France no Montaigne, no Descartes, no Voltaire, no Lamartine. There is no descendant known of Calvin, Luther or John Knox."

"Authors," says Dr. Maudsley, "are not agreed as to the proportion of cases of insanity in which positive hereditary taint is detectable; some, like Moreau, putting it as high as nine-tenths, others as low as one-tenth. The most careful researches fix the proportion as not lower than one-fourth if not as high as one-half; and there can be no doubt that the tendency is to increase the proportion as investigation becomes more exact and searching." (*Reynolds Syst. of Medicine.*)

"Another fact of observation is that the offspring of persons who have suffered from some nervous disease, frequently inherit a liability to the attacks of some other nervous disease

than that which has given them their neurotic heritage; there is a kinship between nervous diseases by virtue of which it comes to pass that they undergo transformation through generations. The two diseases most closely related in this way are insanity and epilepsy; the descendants of an epileptic parent being almost, if not quite, as apt to become insane as to become epileptic, and one or other of the descendants of an insane parent not infrequently suffering from epilepsy." (*Responsibility in Mental Disease.*)

Since the direct cause of insanity is some morbid affection of the nervous system, some instability of nerve element, and as every part of the organism is transmissible, we see that heredity of mental diseases must be the rule. Convulsions in the ancestors may be hysteria, or epilepsy, or insanity in the descendants. A case is cited where hyperæsthesia in the father branched out in the grand-children into the various forms of monomania, mania, hypochondria, hysteria, epilepsy, convulsions and spasms.

Piorry says: "A goldsmith who had been cured of a first attack of insanity, caused by the revolution of 1789, took poison; later, his eldest daughter was seized with an attack of mania, passing into dementia. One of her brothers stabbed himself in the stomach with a knife. A second brother gave himself up to drunkenness, and ended his career by dying in the streets. A third, owing to domestic annoyances, refused all food, and died of anæmia. Another daughter, a woman of most capricious temper, married, and had a son and daughter; the former died insane and epileptic; the latter lost her mind during her lying-in, became hypochondriac, and wished to starve herself to death. Two children of this same woman died of brain fever, and a third would never take the breast." (*De l'Hérédité dans les Maladies*, p. 169.)

This hereditary disposition may appear at the same period of life in successive generations. Prosper Lucas relates the case of a noble family at Hamburg, all of whose scions, distinguished through four generations for great military talents, went mad at the age of forty; there remained but one member, a soldier like his father, and he was, by decree of the senate,

forbidden to marry; the critical period came, and he also went mad. Esquirol says that in one family the father, son and grandson committed suicide at about the age of fifty. One family came under my own observation where the father and son committed suicide at about the fiftieth year, and the grandson made two attempts, and may have succeeded since I lost sight of the case.

In considering this question of heredity we must remember that a certain number of insane persons will necessarily have insane ancestors, without there being a necessary connection, in the way of transmission between the ancestor and the insane descendant.

M. Baillarger has made some important investigations to decide whether the father or the mother were more apt to transmit this hereditary influence, with the following results.

"1. The insanity of the mother, as regards transmission, is more serious than that of the father; not only because the mother's disorder is more frequently hereditary, but also because she transmits it to a greater number of children.

"2. The transmission of the mother's insanity is more to be feared with respect to the girls than the boys; that of the father, on the contrary, is more dangerous as regards the boys than the girls.

"3. The transmission of the mother's insanity is scarcely more to be feared, as regards the boys, than that of the father; it is, on the contrary, twice as dangerous to the daughters."

The first and second of these propositions are confirmed by the late Dr. A. Brigham, and apparently endorsed by Bucknill and Tuke.

Dr. Leubuscher, of Berlin, points out that the lower forms of mental disease, as imbecility or silliness, and various forms of depression, appear in a remarkable degree, to be of an hereditary nature; and, also, that the outbreak of an hereditary predisposition to insanity is especially connected with such processes as those of puberty, childbirth, and the climacteric period.

The exciting causes of insanity, so far as we are able to determine, are physical; that is, no moral or intellectual opera-

tions of the mind induce insanity apart from a physical lesion. From a circulatory disturbance in the supply of blood to the brain, induced through irregular or excessive use of the organ, or under mental emotions, there may be initiated temporary or even permanent cerebral disease, whereas it is equally true, that from an altered condition of the fluids not yet adequately understood and determined, and which may have been superinduced during peculiar natural periods, as lactation, gestation, menstruation, etc., in some distant organ, such as the uterus, kidneys, lungs, we may have like results.

Doubtless the most frequent physical cause is *intemperance.* Considering the unreliability of statistics, it is not easy to measure with accuracy the extent of this evil as a cause of insanity. But it is the testimony of all alienists that its victims are filling our asylums. Yet it is to be noticed that even there an element of great uncertainty is introduced. A renowned French psychologist, Moreau, says: "Drunkenness is regarded as one of the most frequent causes of insanity. But it is equally certain that drunkenness, or rather the taste for drink, is as often, and even more frequently, a first symptom,—the effect therefore, and not the cause of disease." And this taste, he affirms, has been hereditarily transmitted from the parents to the offspring, just as the same features, and color of hair and complexion.—"I receive patients daily at the Bicêtre," he writes, "in whom I can trace back the origin of the malady to nothing else but the habitual intoxication of their parents." Esquirol also long since gave utterance to the same idea when he said, "If the abuse of alcoholic liquors is an effect of mental depravity, of educational vices, and the force of bad example, men sometimes give way to it by reason of a morbid impulse, which they have not the power of resisting."

Another French psychologist, Dr. Morel, also observes, "It is not necessary to create a monomania of which the chief characteristic is an irresistible tendency to fermented liquors. That tendency is most frequently only a *symptom* of a principal disease, especially when it is suddenly developed in persons who previously had given no evidence of such a propensity."

The late Dr. Anstie, who made alcoholism a special study, is clearly of the opinion that of all depressing agencies it has the most decided power to impress the nervous centres of a progenitor with a neurotic type, which will necessarily be transmitted under various forms and with increasing fatality to his descendants.

Morel relates the history of one family which may be cited here as a typical example of the course of degeneration proceeding unchecked, as follows:

First generation: — Immorality; Alcoholic excess; Brutal degredation.

Second generation: — Hereditary drunkenness; Maniacal attacks; General paralysis.

Third generation:—Sobriety; Hypochondria; Melancholia; Systematic mania; Homicidal tendencies.

Fourth generation: Feeble intelligence; Stupidity; First attack of mania at sixteen. Transition to complete idiocy and probable extinction of the family.

Dr. H. Dagonet, while placing intemperance at the head of the physical causes of insanity, and devoting in his text-book a whole chapter to its special features, says, that it is especially true in the colder countries, as Sweden, Great Britain, Russia and North Germany where it seems to enter as a factor in one third of the cases; and in France it seems that the past few years have witnessed a steady increase in the proportion of cases caused wholly or in part by the use of intoxicating liquors, especially brandy and absinthe.

Loss of Sleep. In the chapter upon Hallucinations, allusion was made to the ill effects produced upon the brain by the loss of sleep, and, when a predisposition to insanity exists, it proves a frequent and powerful exciting cause. Persons thus unfortunately constituted should be very careful not to allow their duties or their pleasures to interfere with this needful restorative process, which is indispensable to their perfect safety. The records of our asylums show that in a large proportion of cases the disease was attributable chiefly to this cause which a little prudence could have prevented.

Dr. Isaac Ray says, in his little work on Mental Hygiene,

"One of its most common effects is a degree of nervous irritability and peevishness, which even the happiest self-discipline can scarcely control. That buoyancy of the feelings, that cheerful, hopeful trusting temper, that springs far more from organic conditions than from mature and definite convictions, give way to a spirit of dissatisfaction and dejection, while the even demeanor, the measured activity, are replaced either by a lassitude that renders any exertion painful, or an impatience and restlessness not very conducive to happiness. Upon the intellectual powers the mischief is still more serious. They not only lose that healthy activity which combines and regulates their movements in the happiest manner, but they are no longer capable of efforts once perfectly easy. The conceptions cease to be clear and well-defined, the power of endurance is weakened, inward conceptions are confounded with outward impressions, and illusory images obtrude themselves unbidden upon the mind. This kind of disturbance may pass sooner or later into actual insanity, and many a noble spirit has been utterly prostrated by habitual loss of rest."

Loss of sleep is also one of the earliest symptoms, and one of the most frequent, in all the different forms of insanity, but especially acute mania and melancholia.

Probably to the unprofessional mind the habit of *self-abuse* or *masturbation* would at once suggest itself as a fruitful cause of insanity, as is indeed the case. All alienist physicians bear evidence to the power and prevalence of the pernicious habit. No vice can be more easily initiated, none can be eradicated with greater difficulty. It is, however, true that a great difference of opinion exists among authors as to the frequency with which this habit should be considered a cause or an effect of insanity; a difference of opinion due in part to the difficulty of obtaining trustworthy evidence from the patient or his friends.

It is very remarkable, but it is very true, that the indulgence of the sexual passion through unsexual means is very frequently associated, in both sexes, with certain neurotic temperaments given to the display of precocious piety and the manifestation of religious ecstasy and gloom. "I could not

say," says Morel, "how frequently I have seen this pernicious habit existing in youths educated with the most pious sentiments, generally, however, endowed with a timid and retiring disposition." Speaking of this sexual neurosis in women, Guislain says that it finds its constant cure in "marriage and asafœtida."

Cranial injuries, whether at birth or later, have not received the attention that their importance as a cause of mental disease seems to demand. Dr. J. Crichton Browne has, however, published two important papers upon this subject in the West Riding Lunatic Asylum Reports. He shows clearly that cranial injuries may hold an etiological relation to every species of mental defect and disease, and that the full history of their effects upon mental health would be co-extensive with that of insanity. From a slight peculiarity of temper up to fierce madness; from the deprivation of a single sense up to the denudation of almost every faculty there is no phase of derangement which may not have a blow on the head as its starting point. The forms of mental disease, which concussion and blows on the head were most active in producing, and their effects most readily traced were: 1. Idiocy; 2. Recurrent Mania; 3. Dementia; 4. Dementia with Epilepsy; 5. Senile Dementia; and 6. Mania à Potu. From April 1st, 1870 to April 1st, 1872, there were admitted forty-two patients into the West Riding Asylum, in whom the influence of cranial injuries, in the production of mental derangement was clearly set forth.

Sun-stroke, fever, insufficient and even *excessive nutrition, epilepsy* and *child-bearing* may also cause insanity. The two last causes are so important that the special kinds of insanity caused by them will call for extended notice elsewhere.

Affections of the *uterus* and its appendages afford notable examples of a sympathetic action upon the brain, and not unfrequently play an important part in the production of certain kinds of insanity, especially melancholia. Dr. Maudsley says: "Perhaps the best opportunity of studying the early stages in the genesis of melancholia is afforded by the mental depression that commonly accompanies certain uterine dis-

eases. On the other hand there is equally striking evidence of this intimate sympathy of parts, in the fact that morbid states of organs favoring a certain mental disposition may unquestionably be in turn caused by the latter."

Few conditions exercise so profound and widespread an influence upon the physical organism and mental health of women as does the *climacteric*, and hence it is reasonable to suppose that the symptoms of insanity originating under such circumstances should present a certain amount of uniformity, and this is so far the case that we find "climacteric insanity" appearing in many of the classifications.

Dr. Skae gives as pathognomonic, a group of symptoms characterized by "a monomania of fear, despondency, remorse and hopelessness, passing occasionally into dementia;" and Dr. Maudsley says of the same time of life: "When positive insanity breaks out it usually takes the form of profound melancholia, with vague delusions of an extreme character."

Sometimes, finally, insanity results from a single lesion, but more generally it is the culmination of a series of morbid changes. The person may have no special or well marked disease, but is in general ill-health, is run down in tone, and, reaching a certain point the brain gives way, and he is insane. Now this point is by no means a uniform one. Each individual has a standard of health and also a constitutional status, both as to the resisting power and recuperative energy. What will induce insanity in one will not in another. Causation can never, therefore, reach scientific exactness, except as the condition is fully developed in each case. Or, as Dr. Blandford says: "Men and women become insane because it is in their nature and constitution to develop insanity."

Sex. It is difficult to decide whether one sex or the other be more inclined to insanity. It is not sufficient to take into account the relative number of the two sexes admitted into an asylum, nor even to compare the admissions with the proportion of the sexes in the general population; we must also make allowances for the modifying influences of life, as found in different parts of the country.

"The disorders of menstruation, pregnancy and childbirth

are undoubtedly circumstances which frequently become causes of insanity; but there are also in the male sex, a series of circumstances special to it, such as the more frequent drunkenness, mental exertion, the struggle of ambition, the emotions and exhaustions which necessarily accompany an active life. These circumstances certainly counterbalance the special influence of the sexual process on the origin of insanity." (Griesinger.)

From an examination of 71,000 cases Esquirol was led to think that females were rather more apt than males to be affected with insanity; but further study of the subject led Dr. Jarvis, of Dorchester, to an opposite conclusion.

Bucknill and Tuke say, in their Manual of Psychological Medicine, "On the whole, while it is clearly proved that, in general, fewer women become insane than men, it is difficult to establish that the female sex is intrinsically less susceptible to the causes of insanity than the male, since the former is less exposed to those causes than the latter."

The whole number of "registered lunatics, idiots and persons of unsound mind" in England and Wales on the 1st of January, 1879, is given as 69,885; male, 31,683; female, 38,202. The Commissioners in Lunacy in their Report to the Lord Chancellor remark in regard to the relative statistics of the two sexes: "The result obtained by distinguishing the sexes in these tables confirm the opinion already generally entertained that, as compared with the population, insanity, congenital and acquired, is somewhat more frequent among males than females. The extent to which it appears to be more curable among females and the degree in which it is more fatal among males is also shown. It will be seen that, although the rate of recovery is higher among females than males, the mortality is so much greater among the latter than the former, that the females largely preponderate over the males in the total number under care."

Age.—Setting aside cases of idiocy and imbecility, we seldom meet with insanity during childhood; occasional exceptions are on record, however, especially in private practice, where children of eleven, twelve and thirteen years of age

have been attacked by mania. Insanity seems most frequent from twenty to forty; after the fiftieth year it is much more rare and gives place to other organic affections of the nerve centres which produce a more or less marked enfeeblement of the intellect.

Age seems to exercise an influence in deciding the form which the insanity will assume. Between the ages of twenty and thirty mania is frequent with both sexes; later we find general paralysis among men; and both melancholia and mania among women. At the climacteric melancholia is the more common among women, as is indeed the case with men at a corresponding period when the full activities of life begin to flag. At fifty or sixty all the forms of insanity show a strong tendency to be complicated with dementia.

The following table was compiled by Dr. John Merson, one of the Assist. Med. Officers to the West Riding Lunatic Asylum, and published in volume six of the Medical Reports.

TABLE.

Showing the relative frequency of insanity at different ages in 1054 cases, and the proportion of insane cases to the entire female population.

AGE.	NUMBER OF INSANE CASES.	ENTIRE FEMALE POPULATION.	PROPORTION.
Under 15 years,	13	211,446	
15 and under 20 years,	55	59,960	1 in 1090
20 " " 25 "	88	55,659	1 " 633
25 " " 30 "	130	50,401	1 " 388
30 " " 35 "	135	43,653	1 " 323
35 " " 40 "	127	37,311	1 " 294
40 " " 45 "	124	33,388	1 " 268
45 " " 50 "	111	28,341	1 " 255
50 " " 55 "	98	23,982	1 " 244
55 " " 60 "	56	17,968	1 " 321
60 " " 65 "	49	14,599	1 " 298
65 " " 70 "	36	10,217	1 " 284
70 " " 80 "	27	10,150	1 " 376
80 " " 85 "	5	1,511	1 " 303

"This table shows that the period of fifteen years from twenty-five to forty is the most productive of insanity; but when we take the proportion of the cases of insanity to the

whole female population of the same age, we find the tendency to insanity increases with age up to about the fifty-fifth year, when it suddenly diminishes, and further, that the period of fifteen years, from forty to fifty-five, though it does not furnish the highest actual number of cases, gives the highest ratio to the number of persons of that age living, and is therefore more prone to insanity than any other period of life."

LECTURE V.

Classification.

Before proceeding to consider any of the special forms of insanity, it will be well to suggest some classification under which we may arrange with something approaching to simplicity the different varieties of disease which come under the care of the alienist. Upon examining and comparing the different text-books you will be surprised and puzzled by the number of classifications presented, some of them very simple, others complex and burdensome in their arrangement. Scarcely a writer but has prepared a new nosology of his own, and each seems more embarrassing than its predecessor. The fact that more than fifty different systems of classification have been devised, is sufficient proof of the dissatisfaction felt, and of the difficulties encountered in making a real improvement.

In 1863 Dr. Skae, of Edinburgh, proposed and sketched out an arrangement in groups of the varieties of mental derangement, under the title of "A Rational and Practical Classification of Insanity." "My proposition," he says, "is this: that we ought to classify all the varieties of insanity, to use a botanical term, in their natural orders or families; or, to use a phrase more familiar to the physician's ear, that we should group them in accordance with the natural history of each." His schema he puts forth not as complete, "but as one which

may, by combined efforts, culminate in a better, a more definite, and, at least, a more practical method than the one in present use." This classification is perhaps the most generally adopted of any at the present time, and receives the endorsement of Dr. Blandford in his standard work on insanity; but in my description I shall make use of the comments given by Dr. Maudsley in his Physiology and Pathology of Mind, p. 420.

"The *first* natural group is *idiocy*, including imbecility under all its various forms and degrees. To this class must be referred a large number of cases of *moral idiocy and imbecility*, many of which are mixed up in the present system of classification as monomaniacs of various sorts, *e. g.*, cases of instinctive cruelty, destructiveness and theft. 'Many of our most noted kleptomaniacs have had that tendency from childhood, and have been *moral imbeciles*.' He would refer all those cases of insanity which are but the development and aggravation of a congenital moral perversion, or want of balance, to the class of congenital moral imbeciles.

"The *second* natural group is that of *epileptics*. As a disease of childhood, epilepsy arrests the development of the brain, and is associated with idiocy and imbecility. Afterwards it is associated with maniacal paroxysms, monomania, dementia, or total fatuity.

"The *third* natural family is that of the *masturbators*. It is characterized by a series of symptoms easily recognized—the peculiar imbecility and sly manner of the youthful victim; the suspicion and fear, and suicidal impulses, and palpitations, and scared look, and feeble body of the old offender, passing gradually into dementia and fatuity.

"The *fourth* group is formed of the insanity occurring at the period of *pubescence*, and apparently dependent upon the changes affecting the circulation and nervous system by the development of puberty.

"*Satyriasis* and *nymphomania* constitute the next two groups.

"The seventh group is that of *hysterical mania*—certainly a well-marked natural order.

"Closely allied to the last group is that of *sympathetic mania*, connected with *amenorrhœa* or *dysmenorrhœa*, commonly assum-

ing a recurrent or periodic form, frequently with maniacal attacks, and not unfrequently passing into chronic mania or dementia.

"*Sexual mania* includes a form of insanity occasionally met with both in the male and female sex, but more frequently in the latter, developed immediately after marriage, and connected with the effect produced on the nervous system by sexual intercourse. It usually presents itself in the form of acute dementia.

"The *insanity of pregnancy, puerperal mania*, and the *insanity of lactation* form three distinct groups.

"*Climacteric insanity*, occurring at the change of life, manifests itself as a monomania of fear, despondency, remorse, hopelessness, passing occasionally into dementia.

"Another group consists of cases of insanity associated with *ovarian* or *uterine* disease, and of which one of the most common symptoms is sexual hallucination.

"The next natural order is *senile insanity*, beginning occasionally as mania or melancholia, but more frequently during its whole course presenting the features of dementia.

"*Phthisical mania* is a form of insanity which Dr. Skae believes to present characteristic features.

"The insanity following blows on the head, *traumatic mania*, and that following *sunstroke* present their distinctive characteristics.

"*Syphilitic mania* is a distinct form associated with syphilis.

"*Delirium tremens* and its allied disease *dipsomania.*

"*General paralysis of the insane.*

"*Metastatic mania* includes all those cases following the sudden suppression of an accustomed discharge or eruption, etc.

"The cases which remain and cannot be referred to any of these groups, Dr. Skae would class under the general term of *idiopathic insanity*, divisible into two varieties, *sthenic* and *asthenic; sthenic*, combined with distinct symptoms of vascular action—occurring in persons of robust health and brought on most commonly by causes exciting the passions and emotions; *asthenic*, when combined with symptoms of anæmia, emaciation, feeble pulse, etc., and brought on by such causes as exhaustion, want of sleep, grief, anxiety, starvation, fever.

These are Dr. Skae's twenty-five natural orders or families, each of them to be considered as a separate disease, of which mental derangement is the most prominent feature—"a disease," he says, "presenting a certain variety and kind of mental symptoms, varying in different cases, and at different times in the same case, but still varying within certain limits only, so as to give to each variety its own special psychological character, sufficiently marked and peculiar to make out a distinct physiognomy for each group."

You see how elaborate all this is, and for purposes of scientific discussion and accurate arrangement it answers excellently well, but I cannot help agreeing with the sentiments of Dr. Sheppard, Superintendent of the immense Asylum at Colney Hatch, near London, who says: "This sort of thing looks very learned on paper, but to my way of thinking it is very preposterous and pedantic, for, as Dr. Sankey of the Hanwell Asylum has pointed out in his lectures, it exalts varieties into species, and multiplies simple conditions, which are alike in progress, into complicated conditions, merely because there is a difference in their causation."

Dr. Maudsley speaks as follows, and his remarks apply equally well to all of these elaborate classifications. He says: "It is obviously a classification of which it is more easy to sketch the outline than to fill up the details, and which looks better in outline and promise than probably it ever would do in actual accomplishment. The objections against it which suggest themselves, are, first, that the picture of the characteristic features of each group or family appear to be overdrawn; that in practice we do not find them so well defined as they are represented to be; that the physiognomy of the mental derangement of each of the groups does not really present characteristic features, or a special psychological character; that one of the special causes, which is made the basis of a natural order, may really produce quite different kinds of mental derangement according to the particular temperament or idiosyncracy of the individual, or according to some other circumstance of which we know little or nothing. And this brings us to the second objection, that under the

term *idiopathic*. Dr. Skae lets in all the vagueness, and all the defects of the old classification; for beneath the mysterious word, there is no knowledge hidden, there is no definite cause, nor definite course, nor definite termination for the manifold varieties of insanity included under it; nor are there any characteristic features distinguishing the varieties of idiopathic insanity from some of the forms of insanity included under the other so-called natural groups or families. In fact, the proposed classification so far as it carries out its method, applies only to cases of insanity caused by, or associated with, certain bodily disease, other than the brain disorder, whereas many cases of insanity are examples of brain disorder only; other bodily derangements if present being incidental coincidences or consequences."

A more simple arrangement is that generally adopted in Germany, being a modification of that proposed by Esquirol. It is as follows:

First. Conditions of Depression.
1. Hypochondria. 2. Melancholia.

Second. Conditions of Exaltation.
1. Acute Mania. 2. Monomania.

Third. Conditions of Mental Weakness.
1. Craziness or Incoherence. 2. Dementia or Fatuity. 3. Idiocy or Cretinism.

Fourth. Dementia Paralytica or General Paralysis of the Insane.

Dr. Henry Maudsley divides insanity, according to the mental symptoms, as follows:

I. Affective or Pathetic Insanity.
1. Maniacal Perversion of the Affective Life, Mania sine delirio.
2. Melancholic Depression without Delusion, Simple Melancholia.
3. Moral alienation proper. Approaching this, but not reaching the degree of positive insanity, is the Insane Temperament.

II. Ideational Insanity.
1. General.

a. Mania } Acute.
b. Melancholia } Chronic.

2. Partial.
   a. Monomania.
   b. Melancholia.
3. Dementia } Primary. Secondary.
4. General Paralysis.
5. Idiocy and Imbecility.

For the purpose of these lectures I shall make use mainly of Dr. Isaac Ray's classification. It is similar to that of Pinel, and also the one used by Dr. Sheppard, Lecturer upon Insanity at King's College, London. The forms of insanity may be divided into two grand divisions founded on two very different conditions of the brain; the first being a want of its ordinary development, and the second some lesion of its structure subsequent to its development. We thus have:

First. Defective development of the faculties.

a. Idiocy } Both of these may arise from congeni-
b. Imbecility } tal defects, or result from an obstacle to the development of the faculty, supervening in infancy. Cretinism is also included in this class.

Second. Lesion of the faculties subsequent to their development.

a. Mania } Characterized by unnatural exalta-
b. Melancholia } tion or depression of the faculties, and may be chiefly confined to either the intellectual or affective powers, or affect both; and these may be generally or partially deranged. This class includes the various Monomanias, Epileptic, Puerperal, Moral and Recurrent Insanity.

Third. Dementia, depending on a more or less complete enfeeblement of the faculties, and may be consecutive to injury of the brain, to mania, or to some other disease.

Fourth. General Paralysis of the Insane.

Dr. Maudsley says: "With the exception of the form called General Paralysis, the received classification is founded on the recognition of a few of the most prominent mental symptoms

only—is purely psychological. It amounts simply to this: when a person is excited and raves more or less incoherently, he has *acute mania;* when, after subsiding into a more quiet state, he continues to have delusions and to be incoherent, he has *chronic mania;* when he exhibits insane delusions on one subject, or in regard to certain trains of thought, and talks sensibly in other respects, he is said to have monomania; when he is gloomy, wretched and fancies himself ruined or damned, he has melancholia; and, when his memory is impaired, his intelligence enfeebled or extinct, he is said to be suffering from dementia." (*Responsibility in Mental Disease.*)

LECTURE VI.

Idiocy, Imbecility and Dementia.

The term *idiot* is applied to that class of persons of feeble intellect who have never had a normal amount of intelligence, or whose intellectual development was arrested soon after birth; this is usually associated with some cranial malformation and defective moral sense.

The degree and extent of idiocy may vary greatly. It may range from a complete absence of intelligence (*amentia*) to the slight deviations from intellectual health, only to be discerned by close observation, and classed by some authors among the instinctive monomanias.

Idiots may be persons of fair bodily development and degenerate in brain only. The condition of mind is one in which the reflective, and all or a part of the affective powers are either entirely wanting, or are manifested to only a slight degree. The idiot, in some cases, may hardly seem to rise to the level of the more intelligent brutes, and his movements be limited to the necessities of automatic life; or he may be capable of performing some useful service, of exercising some

talent, or of displaying to a slight degree the moral sentiments. In the condition called idiocy we are not dealing with what may strictly be called *disease*, but with defective or imperfect development, whilst imbecility contrasts with idiocy in that the brain development may be complete, and yet the material of the brain so wanting in normal constituents that mental perfection is impossible. Idiocy does not necessarily imply a less amount of intellectual power than imbecility, though it is usually less. Both conditions are congenital, and as a rule the mental defect is rather to be measured by a standard of degree than considered as absolute; for the subjects of absolute idiocy or imbecility seldom long survive their birth.

Esquirol was the first to clearly define the term, and restrict it to a congenital defect. He says: "Idiocy is not a disease, but a condition in which the intellectual faculties are never manifested, or have never been developed sufficiently to enable the idiot to acquire such an amount of knowledge as persons of his own age and placed in similar circumstances with himself, are capable of receiving. Idiocy commences with life, or at that age which precedes the development of the affective and intellectual faculties, which are from the first, what they are doomed to be during the whole period of existence." Again he says: "Dementia and idiocy differ essentially; otherwise the principles of every classification are wrong. A man in a state of dementia is deprived of advantages which he formerly enjoyed, he was a rich man who has become poor. The idiot, on the contrary, has always been in a state of want and misery."

Griesinger says: "It is beyond doubt that the weakness of the intellect, and therewith the arrest of the psychical development, depends upon a cerebral anomaly. This fact is, in general, much more capable of being directly proved and demonstrated than in other mental diseases. In many cases of idiocy there may be observed considerable pathological changes in the brain or its membranes, on an average much more so than in mental disease in the restricted sense, and we can, in general, say, supported by the great majority of cases, that the deficient mental development is the direct

result of deficient cerebral development in childhood, and that it is in proportion to it. Nevertheless, evident and palpable changes in the brain or its membranes are not always found in idiocy, and we are impelled, by numerous facts, to the assumption that there are also idiotic states where the weakness of perception does not depend upon organic changes, but originally upon a simple functional anomaly of the brain. To this class many cases ought to be referred, where frequent epileptic attacks in very early life, or where onanism, commenced at a very early period, have induced an early exhaustion of the cerebral functions; others, when, long general illness in a child, with impairment of the nutrition of all the organs, included the brain, and therefore the due performance of its functions; further, cases where the mental development remains stationary from want of any external mental impulse, from extreme neglect and inattention, association with other dements, unfavorable outward relations, etc.; finally, certain cases where the mental development does not progress, because in weakly children there exists such an excessive degree of emotional irritability, of timidity and fear, that a state of passionate excitement is awakened by every attempt of mental influence, even by any lively sensorial impression, so that development of the normal process of perception is rendered impossible. Although few of the latter cases originally belong to the idiotic states, still they have the same practically important result — arrest of mental development. But these cases of merely functional cerebral disorder, which at the commencement constitute a more apparent dementia, form a very small minority compared with the cases where the psychical disorder is the result of organic changes in the brain." (*Mental Diseases*, p. 348.)

Some authors speak of a congenital and an acquired idiocy; others of idiocy and imbecility; but Griesinger thinks it unwise to multiply these divisions, and makes two classes of idiocy; the first comprising the more marked cases where intelligence is almost wanting, and the second including the lighter cases of intellectual weakness.

Esquirol divided the feeble minded into two classes, *imbeciles*

and *idiots*. With the first, the physical organization is more or less perfect; the intellect and sensory organs fairly developed; and the affections, passions, desires, ideas and memory present to a limited degree. They think, feel and talk and are capable of being educated. In the second class the organization is incomplete; the senses are obtuse; and the faculties of attention and memory are almost wanting.

He further bases his division upon the power of speech they possess. In the first degree of imbecility it is free and easy, in the second more difficult and the vocabulary limited. In the first degree of idiocy, properly so called, the idiot uses merely words and short phrases; idiots of the second degree articulate only in monosyllables or certain cries; finally in the third degree of idiocy there is neither speech nor phrases, words nor monosyllables.

Dr. Maudsley speaks of imbecility and idiocy, and defines them thus: "Imbecility is simply weakness of mind owing to defective mental development, and may be of every degree of deficiency, moral and intellectual; on the one hand passing by imperceptible gradations into idiocy, and on the other hand passing insensibly into ordinary intelligence. There are some imbeciles in whom a general deficiency of intelligence is accompanied by a singular development of it in a special direction; they manifest for instance a surprising memory for details, such as dates, names, numbers, the exact particulars of distant events, which they recall and recount with the greatest ease and accuracy, or display certain remarkable mechanical aptitudes, or exhibit a degree of cunning which might seem inconsistent with their general mental feebleness.

"Idiocy is a defect of mind which is either congenital or due to causes operating during the first few years of life, before there has been a development of the mental faculties, and may exist in different degrees; the person affected with it may have the power of articulate speech and manifest a limited degree of intelligence, or he may be utterly destitute of any semblance of intelligence and of the power of speech, being little more than a vegetating organism." (*Responsibility*, etc., p. 65.)

H. Dagonet makes the following four divisions: 1. Simple-mindedness; 2. Imbecility; 3. Idiocy; 4. Automatism.

The physical character of idiocy varies according to the degree in which the cerebro-spinal system is involved. In the lower forms of idiocy the functions of organic or vegetable life are ill-performed; the idiot is below the plant; nutrition is imperfect and the power of reproduction zero. He would perish but for the assistance of others.

The functions of *animal* life are likewise to a greater or less extent impaired; he may be scarcely alive to external impressions, or possess the power of executing spontaneous acts. In the lowest type he may be blind, deaf and dumb; the dejections are involuntary; he is indeed nothing more than a living dead man.

The senses of the imbecile may be fairly well developed, though it is difficult for him to fix his attention upon anything requiring prolonged effort; with the idiot, however, the senses are imperfect. The hearing is generally defective, but it is often difficult to tell whether we have to do with deafness or want of attention. Sight is often poor in consequence of a want of symmetry between the eyes, and amblyopia is common. Although not completely insensible to pain, sensibility is greatly diminished.

No particular physical marks can be given as absolutely inseparable from idiocy or imbecility, although after infancy the physical organization never fails to give notice of its presence. In rare cases the head presents no deviation from the normal shape and size, but generally it is too large or too small. Dr. Ray says: "The senses of idiots are more or less imperfect or entirely wanting. Some are blind, others deaf or mute. Some speak with difficulty, others tolerably well. Their movements are awkward and constrained; they walk badly, easily falling down, and are constantly dropping things. They are afflicted with rickets, scrofula, epilepsy and paralysis, their whole physical economy indicating a depraved and defective constitution."

It is common to see idiots with small sized heads, and such have received the title *microcephalous* in contradistinction to

those called *macrocephalous* or having large heads. These latter should generally be classed with imbeciles rather than idiots. The true typical idiot's head measures on an average only about thirteen inches in circumference, whilst an ordinarily developed head will measure from twenty to twenty-four inches or even more. In shape the idiot's head is often imperfect and deformed, the deformity appearing most marked in the frontal and occipital development.

The head of the imbecile is usually fully formed, though you often see considerable contortions and variations in its shape; sometimes the two sides of the face are different, but more generally you see distortion of the cranial bones. The most marked features of distortion are, however, to be found about the mouth and oral cavity.

Some remarkably large brains have been found amongst imbeciles. One in particular, weighed by Dr. Levinge, when at the Hants County Asylum, was 70½ oz. = 1998 grams in weight. This is one of the heaviest brains on record. It occurred in a patient thirty years of age, and a congenital imbecile. Its consistence was normal, and there was no evidence of sclerosis. The cerebrum alone weighed 1786 grams or 63 ounces, and the cerebellum, pons and medulla 212.6 grams or 7½ ounces.

The patient who was 5 ft., 8 in. in height, died of phthisis. The dimensions of the head were: whole circumference, 24½ inches; arch, ant. post., 15½ inches; transverse, 12½ inches.

The degraded condition of the idiot is very clearly seen in the vacant stare, and the foolish and expressionless countenance; in the thick, everted lips, the slavering mouth, the irregular and decayed teeth, the gums often swollen, the frequent strabismus, the ill-formed, generally large ears, and the absence or defect of one or more of the senses. They cannot eat without help, and it may be necessary to introduce the food far back in the mouth, in order to excite reflex swallowing. Others eat without urging, and will put into the mouth anything that comes in the way—bits of earth, stones, sticks, cloth, straw, and even excrement. The bodily movements are uncertain and without precision; his staggering walk is very

striking, yet it seems as though he must be in motion; if he is on his feet, and even if seated, he often has a difficulty in balancing himself. There is a general want of symmetry; the limbs are frequently contracted or paralyzed; the fingers long, slender and deformed; the grasp of the hand feeble or powerless; while the extremities are often cold and bluish from imperfect circulation. Many are blind, deaf and dumb, or they may make their wants known by some harsh and inarticulate sounds; they are rickety, scrofulous, paralyzed, choreic and epileptic. The worst cases lead a purely vegetable life and, as a rule, die young.

Between idiocy of so pronounced a type and simple imbecility, we find all possible grades of physical and mental development. Idiots of this middle grade have at their disposal a limited stock of words or even phrases, and they may articulate distinctly. They eat properly and exercise a choice in matters of diet, rejecting those articles they dislike. They recognize friends and acquaintances, and show gratitude to those doing them a kindness. The range of their intellectual power seems limited, they can originate nothing, but seem possessed to a certain extent, of the faculty of imitation; thus an idiot seeing a man cut a pig's throat, soon after cut the throat of a child, and then displayed great pleasure in telling what he had done. Owing, too, to this imitative faculty some idiots can play passably well on the piano, or engage in some easy mechanical work, but they can design or invent nothing. The sexual instinct is strong, and idiots are given to masturbation and seem destitute of any sense of shame. They are easily excited to anger and subject to fits of blind rage.

Imbecility may be considered as a weakness of mind, consequent upon an unhealthy condition of brain, commencing whilst the fœtus is in utero; and though the mind may become partially developed, yet it is feeble and abortive.

Georget speaks of imbeciles as those who "are conscious of sensations, have memory, can judge of the simple acts of life, can work at the rough occupations which require little discernment; they employ, in order to express themselves, a language composed of those expressions which are most essential to their ordinary wants."

Imbecility, like idiocy, is manifested in different degrees. In the lower forms, "imbeciles produce nothing; and all their movements, both intellectual and moral, are aroused only by impulses from without. They do not think or act except through others; their will is without energy. They will and do not. They cannot follow a conversation, still less a discussion. They regard as serious, things the most gay; and laugh at those most sad. Does something interest them, their eyes are fixed, but they do not see; they hear, but do not comprehend; although they affect to have both seen and understood. They reply correctly, but you must not ask them too many questions, nor require from them responses which demand reflection or are contrary to their habits." (*Esquirol. Maladies Mentales.*)

The imbecile often exhibits some degree of cunning, and in him you sometimes find that the animal characteristics, as they are called, are more than ordinarily developed. In particular, you may observe his ravenous appetite for food, which frequently resembles that of the brutes. Many are, however, capable of learning, and are quite apt in acquiring a facility in using tools, and applying them in simple mechanical trades and manufactures. It is even possible to teach some of them who have never spoken, to speak, when the want of the faculty of speech is dependent upon malformation of the mouth. They know those about them, are affectionate to their friends, but easily put in a rage.

All the mental faculties, both moral and intellectual, may be partially developed, or as Esquirol puts it, sensations, ideas, memory, as well as the affections, passions, and even inclinations may exist though only in a slight and limited degree. Thus imbeciles may be able to think a little, and to judge of the simple acts of life, according to the degree of change, and the conditions of development of their brains. Some even display considerable shrewdness, and are constantly indulging in jokes; they pass for half-witted people, whose droll behavior and ready repartees create amusement. From this class the court-fools were drawn. As a rule they are able to take care of themselves but are wanting in moral control, nor do

they distinguish between right and wrong; they understand that an act is forbidden but they cannot understand the reason. Thus they will commit any criminal act to which they may be prompted and feel no emotions of remorse or regret; they may even be affectionate to their friends, and yet be homicidal and may murder those with whom they are constantly associated, and commit the act with a sort of satisfaction and glee. They will at times relate their deed openly without any appreciation of its enormity and show no sign of remorse; or they may use a great deal of cunning in concealing their deed from fear of punishment. Others are given to thieving and acts of incendiarism, so that as a class they may be considered as dangerous to society, for they are so wanting in moral sense, that they are apt to glide imperceptibly into the ranks of criminals.

Prof. Maudsley says: "There are children of a defective mental capacity not reaching the degree of idiocy, or even of positive imbecility whom it is very difficult to know what to do with sometimes. They are dull, stupid, appear careless, indifferent, and as if they will not try to learn anything, and display low or vicious tastes; when sent to a respectable school they are commonly after some time sent home again as impracticable. Their inability to learn looks very much like stupidity and obstinacy, when it is really the result of disease, and marks a certain degree of imbecility.

"There is another class of boys who cause great trouble and anxiety to their parents and to all who have to do with them. Afflicted with a positive moral imbecility, they are inherently vicious; they are instinctive liars and thieves, stealing and deceiving with a cunning and skill which could never be acquired; they display no trace of affection for their parents, or of feeling for others; the only care which they evince is to contrive the means of indulging their passions and vicious propensities. Intellectually, they are certainly defective also, for they usually read no better when they are sixteen years old than a healthy child of six years of age would do; and yet they are very acute in deception and in gratifying the desires of their vicious natures. Passionate, selfish, cruel, and

sometimes violent, they are intolerable at home; and if they are sent to school they are sure to be expelled. Where they belong to the lower classes, they find their way to prison many times; when they belong to the better classes, there is nothing for it but to seek out some firm and judicious person who, for suitable remuneration, will take care of them, keep them out of mischief, and, while checking their vicious propensities, will try to discover and foster any better tendencies which they may have in them." (*Phys. and Path. of Mind.*)

Although imbeciles and idiots are legally considered as of unsound mind, they are not *mad* in the ordinary sense. But both idiots and imbeciles are specially liable to the various forms of insanity, particularly mania and melancholia. Nor is this to be wondered at; their brains are already imperfect and predisposed to abnormal action and they merely want an excitant to throw the little mind they have off its balance.

Contrary to what one would naturally suppose the first step towards improving their state lies in association; experience shows that the cases associated together under proper care never get worse; and the general rule is that the companionship of each other is so congenial, that if any case does not improve under its influence, such case is exceptional, and that exceptional cases are very rare.

Dr. Dickson, of St. Luke's Hospital, London, says: "These patients must be associated together, at home, or amongst those only who are of ordinary mind; they do not feel an influence of sympathy, but when several imbeciles or idiots are together, they seem to sympathize with and compassionate one another. They next require good feeding and nourishment; they must then be taught, and the teaching requires judgment, study and experience, and must be modified to suit each particular case. These patients have to be weaned from bad habits, and trained to observe the decencies and necessities of social comfort; they may then be in a condition to appreciate and profit by more intellectual culture."

Dr. Maxwell, lately the Superintendent of the Earlswood Asylum for Idiots, writing of the idiotic cases which had been admitted under his care, observes: "I think they have all im-

proved more or less. Kind treatment, good diet and attention will improve the most hopeless cases. Many that come in dirty and irritable, not only become cleanly, but get to speak intelligently, to dress themselves properly, and to make themselves useful."

Dementia.

All cases of insanity when very long continued have a tendency to pass into a condition of, I might almost say, absence of mind, called *dementia*. In this state, the disorder of ideas, affections and actions is characterized by feebleness, and by the abolition, more or less marked, of all the sensitive, intellectual and voluntary faculties. This condition, however, must not be confounded with imbecility or idiocy. In these latter neither the understanding nor the senses have been properly developed. He who is in a state of dementia has lost these faculties to a great extent.

Bucknill says, in regarding a number of patients in a state of dementia, it is convenient to divide these as follows:

1. Those who, whether previously well or insane, are gradually passing into a decidedly demented condition. Some confusion of thought, a perplexed rather than a stupid expression, and a failing memory, are the most obvious symptoms. Such patients are not incoherent, or are only occasionally so. They are sometimes conscious of their condition, and carefully avoid committing themselves. They can read and write, but in regard to the latter it will be found that after composing a few sentences correctly, they express themselves confusedly and spell incorrectly. This is a condition of *partial* or *incipient dementia*.

2. Those who are so far advanced that they cannot tell their names. Many of this class are dirty in their habits. Their time is mainly spent in listlessness, or muttering to themselves, twirling their fingers about in all directions, now catching up something from the ground with which they play until some fresh fancy seizes them; or scraping together bits of paper, sticks, strings, stones, etc. We here have *complete* or *confirmed dementia*.

3. Those cases which are intermediate between the two.

The only form of chronic dementia with which the general practitioner will have much to do is that of old age, or senile dementia, this is a condition to which old age has a tendency and is not infrequently observed in men who have long been engaged in active business life, soon after they have relinquished their business or profession and laid out plans for enjoying ease and pleasure the rest of their lives. A fact which is often observed is, that the brain, in common with all the other tissues, wastes with age, and dementia as the result of a wasted brain is not at all surprising; the only wonder is that more old people do not become demented, when we take into consideration the high pressure living, and wear and tear of the present day.

The main features of senile dementia are loss of memory, restlessness and irritability; or they may be marked by placidity and amiability. It would seem as if the real feelings of the mind had full sway. If the habitual emotions have been evil, the state of dementia will be marked by anger easily aroused, by fretfulness or a discontented selfishness. In persons of really evil disposition, the mental decay of old age is characterized by a hideous display of malignant feeling. The proverb says that very old women are either angels or devils.

Acute dementia.—That enfeeblement of the intellectual, emotional and voluntary powers which constitutes dementia, and which occurs most frequently as the sequel of other forms of mental disease may occur also as a primary disorder. Dementia thus primary is also called acute and apathetic, this last term in allusion to the complete torpor of feeling by which it is marked, and is the same state described by some French writers as stupidité.

It attacks both sexes, but females by preference. It is essentially a disease of youth, being rarely seen in persons beyond thirty years of age, and it seems to be dependent in some instances upon the exhausting influences operating at a period of rapid growth. Children whose powers are over-taxed at a time when the process of development is going on, and when nutrition has not only to repair tissue waste, but form new

tissue, often fall into a state resembling idiocy, in which they are dull, sullen and oppressed.

Under various conditions of life, where new impressions and ideas are not supplied, and where a tedious routine is inevitable, failure of mental power must occur. This is especially so during the period of mental evolution, when the growing mind is greedy for nourishment suited to its wants. Children who are sent at an early age into the mills and factories, when brick wall and clanging machinery surround them; and their work requires the incessantly repeated muscular movements, often pass into a state of acute dementia.

Acute diseases which occasion much exhaustion have sometimes acute dementia among their sequellæ. After severe attacks of typhoid fever there is frequently a certain amount of fatuity exhibited in childishness of manner, loss of memory and complete moral inertia.

This fatuity, which is accompanied by great bodily prostration, and which may proceed from changes in the intracranial circulation, or from an anæmic, atrophical, or imperfectly nourished state of the brain, is oftenest seen in those cases in which there has been much delirium during the fever. It sometimes has its origin in malaria. There can be no question that it is often brought on by masturbation, as anæmia, loss of strength and nervous exhaustion, result from the practice, and after these come forgetfulness, heaviness and listlessness, which grow and grow until fatuity is attained.

Acute dementia either steals over the patient by gradual, and at first almost imperceptible, encroachments, or it is ushered in by an attack of excitement. But however introduced, when once fairly established, it is manifested by a greater or less suspension of the mental activities. The inward weakness is also expressed outwardly in modifications of physiognomy, gait and conduct. The countenance wears a perplexed or vacant expression. The attitude betokens lethargy or irresolution. The voice loses its accustomed tone and becomes low and drawling, and the limbs perform their duties with an effort. The patient is silent and self-absorbed. If spoken to gives no heed to what is said. If roused, he may,

after a pause, answer a few questions correctly, but when the conversation is pushed further, it is found that his ideas are mixed, and that he cannot collect or arrange them. His memory is bad, his command of language poor. The patient will slowly repeat any question that is asked of him, and if the sentence be a long one, he will repeat the three or four words which close it. He does not attempt to answer the question, he simply echoes it.

When the dementia is of a severe type, the mental state is one of profound stupidity. Comprehension is lost, memory is a blank, the sentiments are lifeless, the will is palsied. Organic existence alone remains.

Of the bodily symptoms those connected with the circulation are the most prominent. They consist in feeble action of the heart, small pulse, and passive hyperæmia of the extremities. The hands and feet are cold and have a bluish-red color; this is very striking and is often accompanied with swelling. They are in fact affected with real chilblains even in summer. The same bluish-red look is also seen in the nose, ears and cheeks, giving rise to a chilled, livid and pinched look. In females there is generally amenorrhœa and rarely leucorrhœa.

When placed under favorable surroundings as regards food, air, light, warmth and exercise, these cases not infrequently recover. The same class of remedies will be called for as in melancholia.

LECTURE VII.

Melancholia.

I shall begin my description of the special forms of mental disease with that known as Melancholia, because almost every case of mental exaltation is preceded by some degree of depression, although in many cases this is transient and may pass unnoticed. The primary symptoms of all cases of insanity are connected with the emotions, and alterations in these emotions are the earliest phenomena to be observed.

The term melancholia is derived from two Greek words which signify black bile, and had its origin in the belief that the liver was the seat of the soul, and of the intellectual operations; and it was supposed that the particular condition which we call melancholy was consequent upon a secretion of black bile. Although this idea has passed away, although a secretion of black bile is not a cause of the mental state known as melancholia, still nearly every form of disorder of the liver is accompanied by more or less mental depression.

Esquirol, whose writings you will find still regarded as high authority, suggested the term *lypemania*, from *lupeo* to cause sadness, and *mania*, madness, as a substitute for melancholia, but the latter term had become too well fixed in popular use to be easily abandoned. Nor does melancholia partake of the nature of mania, in the sense in which the latter term is generally used, and we shall find that melancholia as a rule presents features of depression, and mania those of excitement or exaltation.

Melancholia may precede, succeed, or alternate with mania; or there may be mixed cases, or cases in which excitement and uncontrolled impulse appear in the midst of the depression.

We may define melancholia to be a state of mental depression which engrosses the faculty of attention and paralyzes the faculty of reasoning, and permits actions which are impulsive and beyond the control of the will. It is characterized by

delirium of a sad character, and by mental depression, sometimes extending to stupor.

Melancholia may be acute or chronic; the invasion of the disease is usually gradual, but sometimes sudden; and we find in this form of disease what we constantly notice in various physical disorders, viz., that each case is marked by some peculiarity of its own, in the same way that every human face differs from another.

Sir Benj. Brodie writes: "On some occasions I have labored under depression of spirit, having what I may call an abstract feeling of melancholy, there being no external cause to which it can be attributed, and it being at the same time, so far as I can judge, not connected with any derangement of any one of the animal functions." Although no derangement of the animal functions could be detected by him, there was probably in his case, and there is in all similar cases, some error in the system, some slight malassimilation, some failure in the organs of nutrition, which, acting on the brain through the circulation, caused the slight degree of melancholia, for although we have not yet been able to connect special changes of the blood with special disturbances of nervous function, we know that the nervous centres are exquisitely sensitive to the slightest modification of this fluid. This condition, though commonly transient, is nevertheless a state of melancholy of a slight degree, and, when it becomes habitual, really constitutes a state of mental disease.

Griesinger makes special mention of such cases as follows: "Such a condition, but wholly of a chronic character, of an habitual depression of spirits and ill-humor, with a tendency to a constant love of contradicting, arguing, suspecting, etc., is not infrequently met with in conjunction with apparent health, especially among females, and is very seldom recognized as a morbid condition, although it may readily be distinguished by the following characteristics: By being traced to a distinct attack of indisposition; by undergoing distinct remissions; and by a consciousness of the change on the part of the patient, but with inability to resist it." He further says: "The fundamental affection in all these forms of disease consists in

the morbid influence of a painful depressing negative affection,—in a mentally painful state. This state may at the outset, in the simplest and most primitive form of melancholia, continue in the form of a vague feeling of oppression, anxiety, depression and gloom; generally, however, this vague obscure feeling of annoyance passes into a single concrete, painful perception; then arise thoughts and opinions in harmony with the actual disposition of mind, and without external motive: a veritable delirium, revolving constantly upon some tormenting and painful subject, while at the same time the intellect presents some anomalous forms, is restrained in the exercise of its freedom, becomes slow and sluggish, and the thoughts monotonous and vacant."

The following will describe an ordinary case of melancholia. A person of previously cheerful temper, either suddenly, from some obvious, or gradually, from no appreciable cause, manifests a change in his habits and demeanor. He is indifferent to what is going on about him and has a general feeling of lassitude and depression; he shuns his neighbors and family and takes no pleasure in the society which he has heretofore enjoyed. His natural sleep is disturbed, and he awakes in the morning unrefreshed, burdened with the oppressive thoughts of another day, and with a growing incapacity for pleasure and work. His taciturnity is accompanied by emotional disturbances. He bursts into tears, and appears to be lost in a gloomy reverie from which he is aroused only to tell you that his mind is going, that there is no remedy, that his soul is lost, that he has no hope, that his wife and family are against him, or that they are starving. He may have a good balance at the bank, but he will not believe it, and no favorable calculations and demonstrations will make him do so. His credit is gone, he is absolutely penniless. All the acts, he says, of his life should have been different. He has thrown away chances, neglected opportunities, and done deeds, which in their terrible influence are not to be cancelled. The future has no hope, the past no consolation, they are alike dark and clouded. It is useless to attempt to reason with persons in this state; self-feeling is so intensified and exaggerated that you cannot divest

them of its painful and absorbing reality. You may tell the religious melancholic that there is hope and comfort for all, and assure him of the same by Scripture passages with which he is already familiar, and which were once balm to his wounded spirit, but it will not do, there is comfort and hope for all *except himself*. With this state of things involving so completely, though not exclusively, the affective life you may have hallucinations of sight and hearing. Delusions you perceive already exist, and a very common one is, that food can be of no service; that life can be equally sustained or death met, without it. Or there may be a suspicion that the food is poisoned, and under either state of things there is often great difficulty in getting the patient to take food, or it may be persistently refused altogether. More alarming even than the delusions are the hallucinations. Voices whisper or loudly dictate; they may be struggled against for awhile and successfully resisted, but at length, perhaps, they are overpowering. Homicidal and suicidal impulses overthrow the power of the will, and an act of violence follows.

Dr. John Conolly records the case of a lady who lost her only son, who was her idol, by a sudden and most unexpected death. He dropped down dead in the midst of apparent health. This shock stunned and overwhelmed the unfortunate parent, and for a long time grief alone occupied her. In a few weeks her state became that of deep melancholia, in which she never, in any way, alluded to her bereavement, but was ever reproaching herself as sinful, unworthy to live, and deserving of eternal condemnation. She became insensible to all ordinary occurrences and affections, indifferent to her family, inactive and silent, and attempted suicide.

Dr. Dickson reports the following typical case, in his work on Medicine in Relation to Mind, page 180.

"E. B., a young lady æt. twenty-five, a member of a most united and well brought up family, was admitted into St. Luke's Hospital while I had charge of that establishment. At the time of her admission she said that she was lost to all human feeling, that she knew the reason why her friends had brought her to the hospital, viz., because she had attempted to

commit suicide by taking laudanum; but she told me that she had so frightened herself that she had resolved not to attempt to do so again. Conversing with her on ordinary subjects she spoke remarkably well. Her information was very good, and the ordinary observer might have failed to discover any insanity in her. She had for some time before been captious as regarded her food, but when she saw that another patient in the ward was fed like a baby, she said she would make an effort to take her food, rather than be similarly treated, and she said she hoped she should never come into the same state as that patient. She was exceedingly neat and cleanly in her habits and dress, and employed herself generally with needle-work, and for several days her state seemed to improve. She then asked for writing-paper, and to my surprise exhibited a very much more marked departure from her normal condition than I expected. When in health she used to write a very clear hand, and her orthography was good, but the letter she attempted to write in the asylum occupied her the whole day, and when brought to me was on a quarter of a sheet of paper, was covered with blots, was in a small, almost illegible hand, and crossed; it was very badly spelt and full only of her moaning and complaining that she had sold herself to the devil. The next day she was very much more depressed and asked not to go out in the streets, as she had done on almost every previous day. On several occasions she asked for writing-paper and every letter was in exactly the same strain as the one I have mentioned, and after each she seemed more depressed than before.

"From time to time whenever I made occasion to converse with her upon general subjects, I found her information quite as good as when she was admitted, and her mind clear, and her power of attention in conversation for a *short time* very good. In fact her conversation was generally coherent; but she always reverted before long to her own wickedness, and to her belief that she had sold herself to the devil; that she had sinned against the Holy Ghost; that she could never be forgiven, and that in fact she had no soul, so that it was agony for her body to be alive; reasoning with her on the subject

was quite out of the question; both calm grave reasoning, and jocose and satirical interpretation were powerless to shake her fixed ideas, though naturally she had a most keen sense of the ridiculous. She continued much in the same condition as when admitted for about a fortnight, when one day she put a table-knife into her pocket at dinner time, the discovery of which fanned into a flame the smouldering embers that had racked this poor girl's brain for weeks and weeks. She stated that she had intended to stab herself in the night, and that she was greatly distressed that her purpose had been detected and baulked. All through the night she was screaming and crying, and declared that her room was full of devils; the next night she packed her bedding into a heap, and tried to get up at the window, and stated that she wished to have one more view of the London gas lights before she died, and she told me that she had hoped that she would have been able to get her head between the partitions of the iron window frame, and so have succeeded in hanging herself; this, I am happy to say, she found impossible. For days and nights she was continuously restless, sometimes crying, sometimes screaming, sometimes lying underneath the bedstead, sometimes she turned her feet on her pillow and her head the reverse way in the bed, declaring that she was loathsome and full of devils, and that her room was full of devils, and that she herself was upside down.

"She refused food, saying it was a shame to waste it on her, and it became necessary to feed her. She also became dirty in her habits, and her condition of distress and agony of mind were the most appalling that could be witnessed. The acute attack ran a course of a few weeks only, and she died exhausted; the post-mortem examination presented one general appearance, viz., that of wasting.

"The patient had a remarkable history. Insanity had shown itself in her family for four generations. At the time she became affected, one of her sisters was in an asylum suffering from acute mania; and I learned from my patient that the interviews which she, from time to time, had with her sister at first impressed her most profoundly with the awfulness of in-

sanity, but that since she herself had become affected the dreadfulness of the idea had disappeared. She told me that her own attack was very insidious and commenced with a simple feeling of depression. She afterwards turned her attention to religion, and, by degrees, she came to assume the idea that she was wicked, an idea which became exaggerated to the unbounded imaginings I have described."

Through the kindness of Dr. S. H. Talcott, the details of several cases have been furnished from the case-book of the Homœopathic Hospital at Middletown, and they will give a better picture of the daily changes and progress of a case of melancholia, than would a condensed and running narrative.

Case 1.—"Mrs. J. P., æt. 35; has two children, the youngest aged nine months; has no insane relatives. Fifteen years ago was insane and recovered; the present attack began four weeks ago, she then commenced to talk incessantly, this continued a few days, since then talks incoherently at times, laughs and cries without cause; her physical condition is poor and weak; pulse 80.

"Apr. 3d, 1879.—Admitted last night, much fatigued by her journey. Slept an hour and a half. Pulse 88; temp. 99.8. Has headache mostly in occipital region; talks incessantly,—"Tell me the story," "Give me the papers," "They know." Breathing is labored and husky, with long inspiration, followed by short expiration. Pupils slightly dilated. Complained of chilliness during the night; is thirsty and tongue coated. ℞. Natr. mur.

"Apr. 4th.—Pulse 76, temp. 97.5. Tongue coated white on edges, red through centre and at tip. Breathing natural, and says she feels better than yesterday. Slept four hours. Wants petting, and is restless at times.

"Apr. 7th.—Pulse 80, temp. 98.9. Slept well, is quiet, pleasant, and looks better. Wishes that she had a pile of singing books, so that she could start off. Incoherent talk. Hungry.

"Apr. 8th.—Is inclined to cry. Tongue coated on edges; thirsty. Head feels tired, and she slept little. Pulse 76.

"Apr. 15th.—During the past week has been mischievous, hysterical, and full of delusions. To-day the pulse is 74 and

weak. Had a pain in head during the night, and has had pressure in back of head for some time; the pupils are dilated, and she cries, laughs and sings.

"Apr. 24th.—Has had frequent desire to urinate, passing but little at a time; now complains of pain under left shoulder and through lung. Better mentally.

"May 28th.—Improving in mental and bodily strength.

"June 10th.—Inclined to be lachrymose. Tired feeling in head.

"July 7th.—Talks and acts rationally, and on July 29th she was discharged recovered.

CASE 2.—"Mrs. S. A. T., age 43, married; has three children, the youngest being 16 years old; no insanity in the family; first attack, duration eight months; menstruation regular; admitted June 9th, 1879, laboring under melancholia.

"HISTORY.—Always of a quick, violent, emotional temperament, and very devoted to her children; when business cares and reverses came upon her husband she felt them intensely for the sake of her children, but bore the pain in silence. Her first symptom was want of sleep and consequent nervousness; next followed talkativeness and fixed ideas. About this time a short illness of a daughter, the death of a sister and of a dear friend contributed to unhinge her mind yet more. Now appeared fixed and mistaken views of commonplace things, erroneous impressions, great restlessness and increased insomnia, dissatisfaction with some of her family, and inability to adapt herself to circumstances.

"June 11th.—Trifles disturb her and everything seems a burden to her, and she feels worried all the time. When quiet she gets along pretty well, but anything out of the usual routine disturbs her greatly. Has a dull pressure through the head, and sensation as of a tight band; also a tired and confused feeling. Bad taste in mouth; constipation; menstruation irregular. ℞. Merc. sol.

"June 13th.—She feels worse on awakening in morning, and after she has slept well. Appetite poor. Toward night she has a dull pain in the forehead.

"June 17th.—Mental condition much as before. A vaginal

examination shows the uterus to be somewhat prolapsed, the cervix enlarged, especially anteriorly; and the os elongated laterally with three small polypi projecting from it, causing no pain or inconvenience to patient. Menstruation recurs at intervals varying from three to six or eight weeks, and causes much suffering. The cervical canal seems filled with a glairy albuminous discharge. Merc. sol. continued.

"June 21st.—Complains of feeling heavy, stupid and depressed, but is better able to throw it off than before.

"July 1st.—Awakes more cheerful in the morning, and seems generally better.

"July 5th.—Not as well; has a dull heavy sensation in head, cannot look constantly at anything as her eyes hurt her. Also a feeling of depression and lassitude.

"July 29th.—Seems mentally well. Examination with speculum shows that the polypi have not decreased in size, but appear larger and more irregular; local applications of Sanguinaria powder were ordered.

"Aug. 15th.—Examination showed the polypi decreased in size and the patient was discharged on the 17th. Recovered."

Case 3.—"Female; married; mother of six children; Catholic; native of Ireland; thirty-four years of age; two sisters and a brother insane; admitted June 1st, 1874.

Patient is of a cross, nervous temperament. A year ago fell and struck her cheek against a chair. Drank hard for six or seven years; then stopped until a week before last Lent, since which she has grown worse. Three months ago commenced to think and say that others were slandering her, and neglected her work and family. Has made several attempts at suicide, once by taking a mixture for softening horses' hoofs; once with white lead; again injured herself with an axe, and has tried to drown herself.

"June 2d.—Quiet and depressed; slept poorly; says she wishes to die as she has neglected her husband and children, and no longer has a home; complains of pain in head, increased by stooping, and dizziness; eats well; Aurum[3]. 3d.—Slept better; ate no breakfast; worried and depressed. 5th.—Brighter every way; sewed, and swept the hall; considerable

pain in head and chest, which was injured by her husband beating her, six years ago. 8th.—Constipated for last four days; Nux vom.^{2} every two hours; Sulphur^{30} at night. 10th.—No stool; ordered an injection. On account of white lead which she had taken some weeks before, gave Alum.^{3}. 12th.—Much better; thinks she will get well; bowels moved; eats, sleeps and works; menstruating. 13th.—Constrictive sensation through chest; pain in back and hips; worse when still, relieved by motion; soreness over bowels; head better, cheerful, and desires to hire out when she gets well; better out-of-doors in air; worse in warm room and at night; Pulsat.^{30}. 15th.—Better; no stool since she stopped taking Alum.^{3}, although she has had three injections; Alum.^{3}. 17th.—Had a natural stool; relieved of all her pains; had a good visit with her husband. 20th.—Seems mentally well, but weak in body; taken home against our wish and judgment. 29th.—Readmitted yesterday; brought by her husband, who says that after two or three days she became moody, stood in middle of floor, and talked to herself; depressed, but not as much as before; Alum.^{3}. 30th.—Very despondent; took off her clothes yesterday in the hall; very weak; eats poorly; given beef tea.

"July 1st.—Would not take food or medicine, without being forced. 3d.—Much excited; takes her clothes off repeatedly; sent to third ward; restless; talks a great deal about her family dying and being in want; says her husband is dead, and she wishes to lie beside him; Hyosc.θ. 4th.—Very bad last night; would not stay in bed; kicked the door; constantly removed her clothing; says her father is starving, her husband dying, etc.; put in sleeves; Aurum^{3}. 10th.—Somewhat stronger; would not sleep in bed; cribbed and slept; much depressed; has a very offensive-smelling, yellowish, thick leucorrhœa, also constipated; Sepia^{30}. 11th.—Slept in crib; leucorrhœa diminished; still constipated; ordered injection. 13th.—Leucorrhœa diminished and not as offensive; stronger though still depressed. 28th.—Stronger; little leucorrhœa; anxious to see her husband; has to be fed.

"Aug. 3d.—Leucorrhœa entirely checked; eats at table; still somewhat depressed; Sepia^{30}. 4th.—Hears husband's

voice in building, and cannot be convinced that he is not here. 7th.—Slight reappearance of leucorrhœa; otherwise same. 9th.—Much depressed; less leucorrhœa; Sepia[200]. 10th.—No leucorrhœa, complains of her head; much depressed; wishes she was dead; thinks her husband is dead, or in the building; Aurum[30]. 14th.—A little leucorrhœa, but less fetid; still thinks she hears her husband down stairs. 7th.—Visited by her husband yesterday, without injury to her; still thinks she hears him; wishes to die. 27th.—Same; has not menstruated since she came back; Graphit.[30]. 28th.—No better; Sulphur[30].

"Sept. 1st.—Changed to Arg. nitr.[30].

"Oct. 2d.—Anxious to go home, so as to get money to pay us for the release of her husband. 23d.—Detected this morning in an attempt to hang herself; much depressed; Aurum met.$\frac{1}{10}$. 24th.—Still suicidally inclined; says she will yet succeed.

"Nov. 10th.—No better; bowels constipated; Alum.[3]. 14th.—Threatens suicide; Aurum met.[30]. 21st.—Does not sleep; much more excited each day about going home, and always thinks her husband is down stairs, and tries to get down; Bellad.θ. 23d.—Slept better; still excited, but less so; pulse about 100.

"Dec. 5th.—Much better; sews all day; cries less; sleeps; still thinks her husband is down stairs, but the delusion makes less impression upon her; Bellad.[1].

"Jan. 2d.—Improving; anxious to get home; cries less; helps in the ward; sleeps better; Bellad.[30]. 4th.—Says if her husband will come and see her, and bring her a warm dress, she will believe he is in New York. 11th.—Had a visit from her husband yesterday; seems free from all delusions; anxious to go home. 16th.—Last night became nervous from overwork sewing, and sleepless; quieted to sleep by Bellad.[1]. 21st.—Did not sleep any; no pain; feels and appears well; bruised feeling of hips and back; bowels regular; Aurum[30]. 22d.—Slept better; still some bruised sore feeling. 31st.—Discharged cured; under treatment eight months."

"It is noteworthy," says Maudsley, "in some of these cases, how sudden and complete may be the change from the deep-

est anguish and despair to a state of perfect calm and sanity. Thus one of my patients, who suffered from acute melancholy, who usually wandered about moaning grievously, or sat weeping profusely, and who had made several attempts against her own life, awoke one morning seemingly quite well, rational, cheerful, and wonderfully pleased at her recovery, remaining so for the rest of that day. Next morning, however, she had entirely relapsed, and it was some months before she entirely recovered." Again, Griesinger mentions the case of a woman with melancholia and delusions as to loss of property and persecution, who for the space of a quarter of an hour was quite herself and then relapsed. Such cases are of interest in regard to the pathology of the disease, as they would seem to show that there is no serious organic disease so far, that the condition of nerve element is a polar modification which may soon pass away, not unlike, perhaps, the electrotonic state that may be artificially produced in nerves.

All writers on insanity, whatever theories of mental action they may hold, are driven by observation of cases to describe certain varieties of the two great primary divisions of melancholia and mania, namely a *melancholia simplex* or melancholia without delusion, and a *mania sine delirio*. These are truly very important varieties, because it is in them, especially in the *mania sine delirio*, that dangerous impulses to homicide or suicide or other destructive acts, are apt to arise.

Melancholy without delusion, is also called *lypémanie raisonnante, mélancolie moral* and *Gemüthskrankheit.*

This condition is a disturbed state of the moral feelings, not, however, necessarily marked by delirious conceptions; in many instances it is difficult to detect the least intellectual disorder, strictly speaking, no hallucination or delusion, but there are always perversions or changes in the emotions.

"I meet every day," observes Guislain, "with melancholics who do not exhibit any disorder in their ideas, or lesion of the judgment." "Melancholia is exclusively an exaggeration of the affective sentiments; it is, in all the force of its signification, a *Gemüthskrankheit*, in the sense in which the word is employed by German psychologists. It is a pathological

emotion, a sadness, a chagrin, a fear or dread, and nothing more. It is not a condition which sensibly weakens the conceptive faculties." (*Leçons Orales,* vol. 1, p. 112.)

Absorbed in profound melancholy, these persons remain in careless indolence, and become slovenly and even indecent in their manners and dress; they seem deprived of all power to undertake any thing new; are heedless and apathetic; they are at once without will, power and energy, and have the consciousness of this lack; they may also bitterly deplore their condition and reason about it with great clearness, expressing a desire to be in a more natural frame of mind and body.

Moreover they oppose a passive resistance to all advice and counsel, and show great dread and dislike to changes and novelty of every kind, resisting all care and attention shown to them. Although such persons show traits of moral depression without marked lesion of intellect, yet close examination will reveal some peculiarities of thought which really serve as a basis and outline for delirious ideas, as for instance erroneous impressions and conclusions upon many points, and an inability to rate things at their true value. Thus they find in their surroundings a continual source of chagrin and grief.

Dr. Bucknill says: "Simple melancholy, then, as is so emphatically laid down by these writers, may exist in association with normal action of the intellectual functions, and is, therefore, fairly illustrative of what Prichard called moral insanity."

Dr. Prichard himself expressly says: "The term which I have adopted as designating this disease (moral insanity) must not be limited in its use to cases which are characterized merely by preternatural excitement of the temper and spirits. There are many other disordered states of the mind, which come under the same general division. In fact, the varieties of moral insanity are, perhaps, as numerous as the modifications of feeling or passions in the human mind. The most frequent forms, however, of the disease are those which are characterized by the kind of excitement already described, or by the *opposite state of melancholy dejection.*" And again, the same writer observes, "A considerable proportion among the most striking instances of moral insanity are those in

which a *tendency to gloom or sorrow is the predominant feature.* When this habitude of mind is natural to the individual and comparatively slight, it does not constitute madness. But there is a degree of this affection which certainly constitutes disease of mind, and that disease exists without any illusion impressed upon the understanding. The faculty of reason is not manifestly impaired, but a constant feeling of gloom and sadness clouds all the prospects of life. The individual, though surrounded by all the comforts of existence, and even (exclusively of his disease) suffering under no internal source of disquiet, at peace with himself, with his own conscience, with his God, yet becomes sorrowful and desponding. All things, present and future, are, to his view, involved in dreary and hopeless gloom." (*Treatise on Insanity*, p. 18.)

Although in many of the cases of simple melancholia the condition is merely one of mental depression, more or less profound or extensive, there may also be such strong emotional disturbance as to induce the most irrational conduct and even criminal acts. Here it is necessary to guard against the mistake of supposing *delusion* to be necessarily the cause of this delirium. "In cases of simple melancholia there may be no delusion; the patient's feeling of external objects and events may be perverted, so that he is conscious of being strangely and unnaturally changed; impressions which should be agreeable or indifferent are painful; he feels himself strangely isolated, and cannot take any interest in his affairs; he is profoundly miserable and shuns society, perhaps lying in bed all day. All this while he may be quite conscious of his unnatural state, and may strive to conceal it from his friends. Suddenly, it may be, an idea springs up in his mind that he is lost forever, or that he must commit suicide, or that he has committed murder and is about to be hanged; the vast and formless feeling of profound misery has taken form as a concrete idea—in other words, has become condensed into a definite delusion, this now being the expression of it. The delusion is not the cause of the feeling of misery, but is engendered of it,—is precipitated, as it were, in a mind saturated with the feeling of inexpressible woe; and it takes differ-

ent forms according to the degree of the patient's culture, and the social, political and religious ideas prevailing, or the particular epoch. In some cases it is striking to see how disproportionate the delusion is to the extreme mental anguish, the patient assigning the most ridiculously inadequate cause for his gloom; one man under my care, whose suffering was very great, said that it was because he had drunk a glass of beer which he ought not to have done; and another man was, as he thought, lost forever because he had muttered a curse when he ought to have uttered a prayer.

"With him who believes that he is doomed to infinite and eternal misery, it is not the delusion, but the affective disorder, that is the fundamental fact; there cannot be in the finite mind an adequate or definite idea of the infinite or the eternal; and the insane delusion of eternal damnation is but the vague and futile attempt to express an unutterable real suffering. In all these cases of melancholia the deep sense of individual restriction which exists, the wretched feeling of the oppression of self, is interpreted as due to some external agency; and as the existence of any passion notably intensifies an idea that is congruous with it, the delusion ultimately attains great vividness. The essential nature of the delusion will depend upon the special nature of the passion in which the individual's self-feeling is engaged, but the particular form which it assumes will depend greatly upon the education and upon the circumstances of life in which he has been placed. Thus the vain and ambitious man who has had a religious training, will assume a character in accordance with his sentiments, and will deem himself a prophet favored of heaven, or even Jesus Christ; the politician will be a prime minister or some great political character; the man of science will have solved the problem of perpetual motion, or will be the victim of complicated and ingenious persecution by means of electricity." (Maudsley's *Physiology and Pathology of Mind*, p. 374.)

Esquirol thought that he could have written the history of the French revolution from the character of the insanity which accompanied its different phases.

Aside from the somewhat rare instances where some violent

moral shock causes a sudden attack, the causes of melancholy act, as a rule, slowly and prepare gradually for the explosion. These causes are prolonged sorrows, and incessant moral conflicts which shake the nervous system and hold it in a perpetual state of tension and fatigue; thus it is that among the causes giving rise to puerperal melancholia we assign a very prominent place to the griefs and annoyances induced by a state of pregnancy.

The more prominent physical causes are those which would produce debility, such as fatigue, privation, poverty, insufficient food, loss of blood, as well as those febrile conditions which profoundly weaken the system. This special influence exerted by *depressing* physical influence upon the development of melancholia deserves to be kept in mind on account of the connection which seems to exist between the character of the causes and the character of the disease.

Of all the so-called mental diseases melancholia is the form most frequently found in connection with some lesion or disturbance of the abdominal viscera, especially the liver and uterus. M. Azam investigated the histories of seven cases of melancholia with suicidal tendencies; of one case of simple melancholia with dangerous tendencies and of one case of hystero-mania. There were granulations of the neck of the uterus in five cases; there was anteversion of the uterus with congestion of its neck and ulceration of the inferior lip in one case; in three cases there were fungous and fibrous growths of the uterus; and in one case there was painful engorgement with leucorrhœa. Schröder Van der Kolk relates the case of a woman profoundly melancholic, who at the same time suffered from prolapsus uteri, and in whom the melancholy used to disappear directly the uterus was replaced.

In the section upon the causes of insanity, allusion was made to the influence of the climacteric period in producing insanity, among those who are predisposed, and Dr. Maudsley says: "When positive insanity breaks out at this period of life it usually has the form of profound melancholia with vague delusions of an extreme character, as that the world is in flames, that it is turned upside down, that everything is

changed, or that some very dreadful but undefined calamity has happened or is about to happen. The countenance has the expression of vague terror and apprehension. In some cases short and transient paroxysms break the melancholy gloom. These usually occur at the menstrual period and may continue to do so for some time after the function has ceased."

Such a condition no doubt is very common in connection with insanity at the change of life, but there seems to be another class of symptoms almost equally common, consisting in the early stages of the disease of perversion of the affections, distrust and vague suspicions of relatives and friends and developing into a later stage of well marked delusions of suspicion and persecution. Not long since a lady was under my care who resided with a married daughter, her own husband being at home in the West. Generally she was very fond of the society of her daughter and her family, but at regular intervals of four or five weeks she would seclude herself in her room, be very quiet, and almost dislike the very sight of her son-in-law, of whom at other times she was very fond. At such times too she would have a strong impulse to throw herself from the window, especially upon bright moonlight nights. She endured this condition of things for months in silence, until at last fearing lest she might harm some one of the family or herself she called upon me for help, and under the use of Cimicifuga and Aurum she was thoroughly cured.

Prof. Maudsley says that both these groups of symptoms seem to be highly characteristic of insanity, connected with the climacteric condition, but he does not think that an observer, unacquainted with the age and history of the patient, would be warranted in pronouncing a case presenting such a group of symptoms to be one of climacteric insanity. To be of diagnostic value the symptoms must be taken in connection with the early history and development of the disease, which in most cases observe a pretty uniform course.

Before any attention has been called to the mental condition, the patient has, in the great majority of cases, been for some time more or less out of health; anæmia and debility in some form being generally present. Probably she is reduced by

previous severe menorrhagia, although the occurrence of this condition in connection with the menopause does not seem to predispose specially to an attack of insanity. In other cases, though menstruation has not entirely ceased, it has been for some months scanty, irregular and painful. In most cases, however, the menstrual flow has entirely ceased, sometimes before mental symptoms are developed, but in the interval the patient has never been restored to her former good health. She continues to suffer from various anomalous sensations, faintness and sinking, headache, palpitations, epigastric pains, and feelings of general debility, with flushings and perspirations. At this time there often appears a craving for stimulants, and not infrequently habits of intemperance are developed. So far the condition of the patient is one common enough in women at this period and occasions no remark. Even at this stage, however, the patient herself is often conscious of some mental defect, forgetting where she puts things, and not being able to get on with her work as before. She may have a vague feeling of something being wrong, though not sufficiently intense to prompt her to do anything obnoxious to others or injurious to herself. At the same time she is irritable and restless, anxious about trifles, and unusually susceptible to the influence of all stimuli. Occasionally she experiences a strong impulse to certain acts, often of a suicidal or homicidal nature.

In some cases depression is an early symptom, and the patient may confess that she feels tired of her life, and has entertained thoughts of suicide. More generally, however, attention is first called to her mental condition by some marked change in her character and conduct, such as neglect of her household duties, or an amount of fussiness in the performance of them quite foreign to her usual disposition. In one case, for instance, a woman noted for regularity in habits and economy in the management of her household affairs took to getting up at irregular hours in the night for the ostensible purpose of getting through her domestic duties, with which, however, she never made any progress. Another, whose former life had been marked by devotion to the interests of her husband and

family, and whose delight was found in making home pleasant to them, became neglectful of home, and spent most of her time in going about from house to house, collecting and retailing all the gossip of the neighborhood.

With such changes in the habits and character there is always more or less marked depression, and often an inclination to suicide. The patient manifests great restlessness, extreme nervous irritability, and it may be, distrust, and vague suspicions of those around her. She has a sense of dissatisfaction with everything she does, and, though always busy, "can never get through with her work." Later as the disease progresses, the depression deepens into profound melancholia marked by a condition of fearfulness and apprehension of some impending calamity, with vague delusions of a gloomy character. In other cases, the distrust and suspicion of others manifested at an early period, become the most prominent symptoms and develop into well marked delusions of persecution, under the influence of which the patient may become violent and abusive.

As has been stated, melancholia may begin suddenly. In some cases a sudden shock or fright may induce a condition of melancholy with stupor; the *mélancholie avec stupeur* of the French; but we usually may detect some premonitory symptoms. Sometimes this may be a fixed idea of a sad nature, which once implanted in the mind slowly gains ground and finishes by invading the intellect and lending to all its thoughts a uniform cast of sorrow. At other times there may be a confused mass of incongruous delirious ideas accompanied by great restlessness; at the end of a few days of this premonitory stage, the melancholia defines itself clearly by the generalization and more pronounced character of the false conceptions.

We sometimes meet with extreme cases of melancholia, which, from the absolute manner in which the mental and physical powers seem to be annihilated, may easily be mistaken for cases of acute dementia. These cases have received much attention under the name of *stupidité* and melancholy with stupor from the prominent symptom. Griesinger says, "this form is not only of the highest theoretical importance

on account of the well-marked mental symptoms, and of the very characteristic anatomical lesions in the brain which exist in some cases, but on account of its being so often and so easily confounded with dementia, which may lead to serious errors both as regards prognosis and treatment.

"Really the patients in the higher degree of these states present to appearance the very picture of dementia. They are perfectly dumb, completely passive, they only move when compelled by some strong external motive; their whole bearing is that of stupidity; the expression is that of profound mental oppression, of a veritable annihilation; but the glance of such patients does not indicate the nullity proper to dements—it expresses a painful emotion, sadness, anxiety or concentrated astonishment. In the more advanced degrees there generally exists anæsthesia, sometimes partial and sometimes general, of the surface of the skin, and a condition of the higher organs of sense whereby the impressions of sight and hearing are rendered quite indistinct and confused, and frequently so perceived as if they came from a distance.

"The voluntary muscles appear at times to be perfectly rigid and on the stretch, sometimes benumbed; it is not uncommon to find such patients in a cataleptic condition, and many of the observations concerning so-called catalepsy belong in reality entirely to this form. The mobility of the members under the control of the will is always very much diminished, occasionally almost suppressed. There is a condition like that of restraint of all the motory functions of the brain.

"In such circumstances the patients have in a majority of cases lost all consciousness of time and place, as well as the appreciation of their bodily necessities; consequently they are in the highest degree unclean, require to be fed, to be clothed, to be put to bed, etc."

This stupor sometimes arises suddenly after some violent and intense emotion or shock; in such cases it is not, as a rule, of long duration, and seems to have been caused by an instantaneous paralysis of nerve-force; it may also occur as a paroxysm in ordinary cases of melancholia, and after attacks of epilepsy, of mania, or even alternate with this last.

A case of this sort came under my observation a short time ago, in which the cataleptic condition was very clearly marked.

Mrs. U., æt. 30, having had four children in about six years, was attacked about six months after her last confinement by puerperal mania which gradually passed into melancholia. Owing in part to unfavorable surroundings which could not be controlled, and in part to strong hereditary predisposition she has never fully recovered. Her melancholia has had a well-marked religious cast; she thinking that she cannot be saved, and that she is more wicked and worthless than anyone else in the world. I have not the time to give all the details of the case but will come down to the present time. About the middle of August, 1880, her husband informed me that she was not quite as well as she had been, and I made several visits trying to persuade her that it was right for her to take some enjoyment in life and try to be more happy. The Essex Institute was to make an excursion to the mountains and into Canada, and the husband, who was much worn by the mental strain of the past year, desired to be of the party, and was anxious to take his wife, hoping that the change of scene and air would do her good; she however refused to go, but consented to have him take the trip, though reluctant to have him away from her. The party went on Wednesday, August 18th, and on the following Sunday, I called and found Mrs. U. much as usual, though perhaps a little more depressed; still, she was surrounded with her children and playing with them. Her mother and aunt were staying in the house during the husband's absence. They told me that Mrs. U. had refused to go to ride, *because she had not been alone with them before.* One of her peculiarities being a strong repugnance to doing anything, eating anything, or wearing anything, for the first time since her illness began a year ago. I, too, tried to induce her to go to ride but in vain.

Early Tuesday morning, about half past three, I was sent for, as she was said to be in a trance, and I reached the house about four. She was in the habit of sleeping in a front room, and the nursery where her children slept opened from it.

Monday night her mother urged to be allowed to sleep with her, but she refused, saying that she had not been in the habit of so doing, and that if her husband had wished it, he would have said something about it, and that if she needed anything in the night, she would call. About two o'clock in the morning the mother and aunt were awakened by one of the children crying, and, going into the nursery, found Mrs. U. standing in her night dress in the middle of the floor; there was a look about her face as if she were peering into vacancy, and an expression as if listening with horror to some dreadful news, and she were waiting to hear more; her finger was raised in the attitude of bidding one hush and listen. All the efforts on the part of her relatives failed to gain any notice or recognition, and they sent for me. On my arrival two hours later her position was literally unchanged; once only it seemed for a moment as though she would fall, but she quickly resumed her position.

I found her in the position above described; limbs rigid and features fixed. All appeals to her feelings or her reason elicited no response, it was like speaking to a statue. I sat down and waited for developments; and here let me say that in dealing with most cases of insanity nothing is to be gained by haste or yielding to the impulse to be doing something.

The mother now put in an appearance, and clinging to the patient tried to get her to bed, using tears, entreaties and threats, but all in vain; finally she tried pulling, when suddenly the patient gave her a sound box on the ear, and at once resumed her former attitude and stolid and anxious gaze. About six o'clock I placed an arm-chair behind her and drew her back into it, but she kept her legs almost straight, and now folded her arms across her breast. All attempts to induce her to swallow were useless, as she kept her mouth tightly closed. From time to time I placed her leg, arm, or finger in a constrained and awkward position, using some force to overcome the resistance of her muscles, but the limb would remain in the awkward position until I again moved it. She in the meantime took no notice of anything; but once in awhile she would look at us with an expression of unutterable horror and

grief. This state of things continued at 8.30, when I left the house. In the evening I found that she had to a limited extent emerged from her condition, but remained speechless and refused to take food. That evening, Wednesday, she slept from 10.45 to 12.30, when she arose and went down to the front door and attempted to go out with nothing on but her night-dress; she was easily prevented, however. Thursday her condition seemed more like intense melancholia, but there was still great rigidity of all the muscles. The temperature was a little below the normal point, pulse natural. The patient was menstruating at the time of the attack, although only two weeks had elapsed since her last period. The husband returned from his trip on Thursday evening, and on Friday she seemed to have emerged from her cataleptic condition, and to be in a state of deep melancholy. She was then removed to a hospital and has somewhat improved.

Griesinger says: "In what condition is the intellectual life of the sufferer during the course of this disease? On this subject certain patients have, after their recovery, given us the most remarkable information. So far from experiencing that total psychical void which is proper to dementia, the mind in the great majority of instances retains its normal activity. But the patient, owing to this abnormal condition of the sensorial perception, unconscious of what goes on around him, lives in an imaginary world. So far as he is concerned, all reality has disappeared, all around him is transformed and effaced. An intense internal anxiety constitutes the fundamental state which torments him almost to suffocation, and from this proceed ideas of being threatened every moment with misfortunes; as, houses going to fall upon him, of the world coming to an end, of total annihilation of everything, as well as certain delusions of having committed some frightful crime, of depravity, etc.

"The sufferer is unable to exert his will, and therefore feels the impossibility of freeing himself from the terrors which threaten him on all sides. Very frequently he cannot afterwards tell why he was incapable of the least exercise of will, why he could not reply, why he could not cry out. Esquirol

has, however, acquainted us with the interesting declaration of a patient after his recovery, 'This want of activity was due to the fact that my sensations were too feeble to call forth an exercise of will.' But this absence of will is most evidently manifested in the utter passiveness, inactivity, and immobility of the patients; as well also by the intercurrent fits of intense activity which sometimes occur, in the same way as many patients may have now and then a short moment of consciousness and obtain a glimpse of the actual world.

"Very often this external insensibility, this suppression of the effort, and the exclusive sad delirium, are accompanied by hallucinations and illusions of the same nature. The patient hears voices which seem to reproach him, to insult him, and to threaten him with death; or a confused noise of bells, trumpets and cannons, etc., in a word, the entire subjective change which is produced in his sensorial perceptions, and the consequent transformation in all impressions causes all external objects which he still perceives to appear only in the forms and figures colored by the predominating sentiment.

Dr. Bucknill says that these cases of melancholia, resembling profound acute dementia, may be distinguished from the latter malady—First, by the expression of the countenance, which, in melancholy is contracted, and marked by an intense though an immovable expression; and, in dementia is relaxed and expressionless. Secondly, in abstracted melancholy the patient resists being moved, sleeps badly, and often refuses food; in dementia, he complies with the wishes of the attendants, has a good appetite and sleeps well. Thirdly, in abstracted melancholy the bodily functions are more seriously affected than in dementia; the body is emaciated, the complexion sallow, the skin harsh, and the secretions generally deranged; whereas in dementia the body often retains its plumpness, and the secretions are little altered from a healthy standard. Fourthly, after recovery the patient who has been affected with abstracted melancholy is found to have retained his consciousness through the whole period of his disease; when recovery takes place from primary dementia, the past is found to have left no traces in the memory.

There is the same difference between melancholia with stupor, and dementia, as between temporary diminution in the sensory nerves of sensibility to external impressions, with pain and new abnormal sensations on the one hand, and complete and persistent anæsthesia on the other. "But as the two conditions may depend on the same cause, and while it is not rare to see these two states succeed each other, and rapidly transform the one into the other, so also this form of melancholia, as melancholic stupidity, may, when it lasts for a lengthened period, become transformed into actual persistent weakness of the intellectual faculties, with cessation of the painful emotions, into dementia, into conditions, therefore, where the intellectual activity is not merely restrained, but actually persistently and most profoundly destroyed."

The following case is reported by Dr. S. H. Talcott in the *Homœopathic Times* of Dec., 1880:

"J. N., female, single, æt. 30, admitted to New York State Homœopathic Asylum for the Insane, June 2d, 1880. Her medical certificate of commitment states: 'She sits in her chair with her mouth wide open, her eyes fixed on vacancy, while the muscles of her face spasmodically twitch. Sometimes she tightly closes her teeth and lips, refusing to take food or drink, imagining it is poisoned. She refuses to speak, sometimes screams wildly and is violent.

"We also notice that her hands are tightly clenched, that she resists every attempt to move her arms, and at times she seems to be intensely frightened at some imaginary object.

"On June 3d, the day following her admission, the patient had to be restrained in bed on account of her extreme restlessness. Had slept none the night before; very thirsty; restless and uneasy; hands hot; inclined to keep them constantly clenched; much twitching of extremities; pulse 84. Ordered the patient to have Zincum.

"On the 4th, the patient's temperature was 99.6° and pulse 90. Slept none; very weak; lies in bed with mouth open; tongue swollen, and does not seem able to protrude it; can scarcely speak, and does not seem inclined to talk. Urine retained, and a catheter used to remove a large quantity of water.

On account of the stupid condition, with swollen tongue, puffy appearance about the eyes, and retention of urine, we gave the patient *Apis*.

"June 5th there was no improvement. The temperature had risen to 102.2°, while the pulse was running at 116. Had to be catheterized; also was fed beef tea and milk with the soft rubber nasal tube.

"From June 5th to June 14th the patient was given Ver. vir., Gelsem., and two or three other remedies, as apparently indicated, hoping thereby to reduce the constantly rising temperature, but with no avail. On the morning of the 14th the thermometer in patient's axilla recorded 106.5°; the pulse was 146, and respirations 52 per minute. All other indications were those of speedy collapse. At this juncture we prescribed Baptisia, five drops of the mother tincture in half a glass of water, a teaspoonful of the solution to be given every half hour. In the afternoon an enema was given for relief of the constipation, and a considerable amount of feces was discharged. At 9.15 in the evening the temperature was 105.8°, pulse 140 and respirations 46, showing a slight change for the better. On the morning of the 15th, the temperature was 104.7°, pulse 120, respirations much less rapid, and the skin was not so intensely hot as on the day before. Still, the patient had slept none during the night, and the bowels remained bloated and tympanitic. On the 16th the patient's temperature was 104°; on the 17th, 103.3°; on the 18th, 102.2°; on the 19th, 100.4°. During these days the bowels were moved with enemata as necessary, and the Baptisia was continued at lengthening intervals as improvement warranted.

"It is well to state here that the patient had totally neglected herself for over two weeks previous to admission, and when action of the bowels was established the movements were absolutely enormous. After an immense discharge the temperature would be lowered a degree or two for a few hours, but would soon rise again unless the Baptis. was given steadily. At one time this remedy was discontinued for Arsen., for a few hours, on account of symptoms apparently demanding the latter drug, but we were forced to return to Baptis. in order to

keep the temperature within bounds. On the night of June 17th the patient slept five hours; on the 18th seven hours at night, and three hours during the following forenoon; on the 19th slept sufficiently, and from this time until recovery she was no more troubled with wakefulness.

"On the 18th of June the patient began to talk with some degree of coherency, although manifestly still under a mental cloud. In reply to a question as to how she felt, she replied: 'I feel better, but I don't know what I am.'

"June 22d, she 'wished she was dead.'

"June 25th, the patient talked sensibly and acted much better in every respect.

"During the remainder of June and through the months of July and August, this patient grew stronger and brighter in body and mind, developing new powers from day to day, the temperature and pulse became normal, the tongue became clear and regained its natural moisture, the appetite improved, and the patient began to sit up and amuse herself with light fancy work.

"The group of remedies most likely to be used in cases where the temperature is greatly elevated, consists of the following, viz.: Acon., Bapt., Gelsem. and Ver. vir. The intense mental excitement of Acon. and the great physical restlessness of Ver. vir. would exclude a consideration of their use in such a case as we have described, particularly when fully developed. Neither of these drugs, in the proving, produces such a deep mental fog as that which existed in the aforementioned patient. Gelsem. has a condition of stupidity simulating the Bapt. case, but the remedy is usually effective only in the early stages of disease, and before there are marked changes of the vital fluids, or degenerations of muscular and other tissues. Of all these fever remedies, therefore, Bapt. is the only one that corresponds, in almost every particular, to the fully developed disease, known as melancholia with stupor. I mean, of course, those victims of the disease whose symptoms and conditions are similar to the one of which we have treated.

"Case II.—M. H., widow; has insane relations, her father and a sister having suffered from insanity; age 53; date of

first attack, 1871; was admitted to the asylum for the second time, December 29th, 1879. This case had suffered from mania, which assumed a chronic form. Having improved materially during her former visit to the asylum she was discharged, and for several years remained quietly at home, causing no trouble. About three weeks previous to readmission this patient had endeavored to commit suicide by jumping into a cistern. She was rescued, and confined to prevent a repetition of the act. After her reception it was found that she was weak, emaciated, sleepless, yet apparently stupid and refusing to speak. All the vital functions were lowered, and she presented the appearance of a person in the midst of a slow fever. Her pulse was 120. The breath very offensive, tongue heavily coated, having a tendency to crack, and with a dark brown appearance. Patient was given Baptisia tinct. in water. Within ten days a decided change for the better was observed. The tongue cleared, the pulse subsided to 80, the patient seemed brighter, and she began to sit up a few minutes each day, although still very weak. After about three weeks careful treatment the patient became more talkative, but mentally was much agitated. She frequently exclaimed: 'I am in all sorts of trouble and cannot get out.' Baptisia was continued in rising potencies until the fullest possible effects were obtained, after which Opium, China, and Apis were given as indicated. After three months treatment this patient was able to walk about and attend chapel services, a progress which can only be realized by those cognizant of the hitherto abject prostration of all the forces both mental and physical. In four months from inception of treatment, the patient was bright, cheerful, free from delusions, and better in all respects than previously for years.

"Case III.—We now present a case treated with Bellad., and with equally brilliant results:

E. V. W., admitted June 6th, 1878, æt. 50, married; form of attack, melancholia with stupor; assigned cause of insanity, overwork. Patient came in a stupid condition; head hot, tongue bright red, with elevated papillæ. Had passed no water in twenty-four hours; had taken no nourishment for

several days and was much prostrated. The woman was catheterized and given Bellad. Although utterly refusing to speak and appearing as if in a semi-comatose state, she, nevertheless, was extremely restless and constantly threw her arms and legs about in a manner as vague and uncertain as the fans of a dilapidated windmill. On the day following admission the patient's temperature was 102.2° and the pulse 104. There was considerable muscular twitching, and the thumbs of both hands were flexed into palms and grasped by the fingers. There was a collection of sordes on the teeth and the mouth appeared hot and dry. Occasionally the patient muttered about fire.

"June 8th. Temperature 101.2°, pulse 96; slept three hours. Less muscular twitching; less heat in the head; eyes more natural; manifestations of intense fear less observable. Passed water twice during the day; took nourishment fairly, and in every way appeared better. The prescription of Belladonna was continued.

"June 9th. Slept four and one-half hours last night; patient continued to improve.

"June 13th. A steady gain is noted during the past four days, and from last date the sick one slept sufficiently.

"It is well to remark here that previous to admission the patient had been treated with massive doses of chloral hydrate, the effects of which were to partially stupefy, not to produce natural sleep. By the use of Bellad., and no other remedy, the result, in a very few days, was a full amount of natural sleep. More than this, under chloral hydrate, the patient rapidly grew worse; under Bellad., she with equal rapidity, took up the march toward the happy goal of perfect health, and on the tenth of August she was discharged fully recovered.

"Case 4.—J. B., male, æt. 16, admitted to the asylum May 1st, 1877. Physical condition on entrance was that of extreme exhaustion. Mentally the patient was utterly depressed and stupid. The causes of mental and physical derangement were masturbation and abstinence from necessary food. The patient's pupils were largely dilated; extremities cold and blue;

pulse 60 and weak. Face flushed; eyes staring steadily at one point; complete apathy—says nothing. Urine dark red and scanty; was catheterized, and relieved of about one pint of water. Nothing has been eaten by the patient for four days. Prescription, Digitalis.

"May 2d.—Slept well last night; symptoms the same.

"May 3d.—Slept all night; urinated in bed.

"May 4th.—Asked for milk; the first words spoken by the patient since his arrival.

"May 6th.—Begins to eat well, and now feeds himself. Pupils still dilated.

"May 7th.—Answers questions with 'yes' or 'no,' is pleasant and smiling; got out of bed for the first time; pulse 80.

"May 8th.—Pupils dilated, but respond easily to light. Patient weak and suffering from seminal losses; pulse fuller and stronger.

"May 9th.—Walks around the room; seems stronger, and physically is improving; mind still very sluggish. During the remainder of the month of May, the patient continued to gain both mentally and physically, although at times slightly depressed and inclined to suicide.

"The months of June, July and August were passed without unusual episode by this case, except that he experienced an occasional epileptic fit, to which malady he had before been subject. The patient was also addicted to masturbation. For epilepsy and the effects of sexual excess he was subsequently treated, but all traces of melancholia with stupor passed away before the vigorous march of Digitalis.

"The recapitulated symptoms which led to the use of this drug are slow pulse (the prime and principal symptom), pupils dilated, and eyes suffused with tears (the latter quite marked), clammy skin of a purplish cast, and utter inertia of the mental faculties."

Dr. Talcott also gives the following valuable hints as to the special treatment of this form of melancholia:

"The patient suffering from melancholia with stupor should be placed in a recumbent position in bed, and kept there. He should no more be allowed to sit up, or stand, or walk

around, than a patient who is passing through a course of continued fever. Constant and patient watching and nursing are imperatively necessary. Careful attention must be paid to the condition of bladder and bowels, and these should be evacuated of their contents by artificial means at regular intervals, otherwise serious dangers would spring from over distention of the former or impaction of the latter.

"Frequent bathing with alcohol and water is highly beneficial, as by this means the skin is kept clean and free from noxious emanations, while at the same time the temperature of the patient is thereby moderated.

"Beef tea and milk should be administered from three to six times per day, as the weakness of the patient may demand. If unable or unwilling to swallow nourishment, it may easily be injected with a soft rubber nasal tube, by means of a Davidson's syringe; medicines, and an occasional draught of fresh water may be given in the same way.

"The remedies most frequently demanded by the observable symptoms of melancholia with stupor are Baptis., Bellad., Digit., Apis, Gelsem., Opium, Ver. alb., and Oleand.; China and Arsen. may also be of service during convalescence.

"We have noticed in one case a marked change for the better after the use of Oleander. The symptoms on which the drug was prescribed were: Absent-mindedness and slowness of perception, utter indolence and aversion to do anything; would not dress nor eat; could not bear the slightest handling, and became greatly enraged if touched by anyone; breathing oppressed and heavy; head hanging down constantly, itching of the scalp with a constant tendency to scratch the head; rumbling and flatulence of bowels, with hard difficult stool; urine brown although passed in fair quantities." Under the influence of Oleand. the patient began to talk, and appeared quite pleasant, although for weeks previous to its use he had obstinately refused to say a word, or to act in the slightest degree like a sentient being. From utter apathy he awakened to new life, and began to eat, drink, and be merry like ordinary mortals."

LECTURE VIII.

Melancholia Continued. Indications for the Use of Fourteen Principal Remedies.

In melancholia we have two classes of symptoms to study, the physical and mental.

The delirious ideas of the melancholic present great similarity in all cases, and differ more in degree than in kind; the patient believes himself lost, ruined, dishonored; he accuses himself of imaginary crimes, and considers the most trifling acts of his life as unpardonable faults; he thinks that he has brought dishonor upon himself and family, and has become an object of contempt and scorn to all around him. He is condemned and sent to prison, and the people surrounding him are jailors and his house a prison; thus he lives in the midst of a most overwhelming anxiety; he feels keenly all the moral anguish of the situation created by his delirium, and sees everywhere signs of scorn, threats of death, and a gloomy outlook for the future.

Illusions and hallucinations are added to the delirium and give rise to paroxysms of dread and suspicion of everything and every one. The patients hear voices accusing and insulting; see threatening images; feel strange sensations, and their actions as well as their thoughts strongly bear the imprint of their deep intellectual disturbance. Thus it is that they refuse food, because being ruined they cannot pay for it, or because they believe it to be poisoned, or because they are wicked and ought not to accept anything of God's bounty to mankind. Some wish to die from hunger in order to escape some ignominious punishment, others in order to relieve their families from the disgrace of their presence. Such persons will make every effort to commit suicide and require constant watching.

A marked feature of the mental state of these melancholics, beside the peculiar and special form of their delirious concep-

tions, is the monotony and passiveness of their delirium; the imagination has to a singular degree lost its activity. Instead of discussing their false ideas, instead of trying to sustain them by ingenious and varied reasoning, as do the so-called monomaniacs, these patients, borne down by the weight of their ideas, simply repeat the same words and the same ideas. If you attempt to convince them, or demonstrate the falsity of their fears, they do not argue, and instead of arousing themselves respond only by negatives to all your efforts of logic. At a more advanced stage, the delirium not only revolves in a narrow circle of thought, but the ideas become incoherent and confused in equal ratio as the intellectual depression becomes more marked. This chain of symptoms is easily understood if we think of the oppressive influence that sadness and grief have upon the intellectual powers, even in the normal condition of health.

With this delirium there are often associated hypochondriacal ideas, which lend it yet more weight. The patient believes that his digestive canal is closed up; that the bowels are prolapsed at the rectum; and they are unable to urinate. The thoughts dwell on the functions of this or that organ, and find new fuel for delirium in their fears about the physical condition of the viscera. Some feel that this or that part of the body is changed or destroyed, or that the sex has been changed; that they have lost an arm or a leg; that the head of an animal has been substituted for their own. With others, again, the ideas are still more connected with the delirium, and in the midst of their intellectual disturbance they think that their bodies are decomposed and give forth a vile odor, hence they flee the society of others and even attempt suicide. Finally it may happen that the delirium pushed to its extreme limit produces so profound a feeling of abasement and annihilation that they think they are dead. You may see them lying motionless on the back, mute, eyes closed, replying neither by word or gesture to the questions of those about them, refusing to eat, and perhaps repeating in a low voice and at long interval that they are dead.

Beside the delirious conceptions which, in spite of their

number and variety, present such uniform characteristics, we find with melancholics an assemblage of modifications in the organic functions which may be summed up in the word *depression*. These changes, difficult to perceive and define when the depression is slight, but clearly marked when the depression is profound, may extend even to stupor or stupidity. But whatever their degree, the changes produced, although varying in intensity, are always identical with themselves, and indicate a uniform cause acting upon the whole body.

The description given by Esquirol of the patient's physical condition is as follows:—"In person, the melancholic is lean and slender; his hair is black, and the hue of his countenance pale and sallow; the surface over the cheek-bones is sometimes flushed, and the skin brown, blackish, dry and scaly; whilst the nose is of a deep red color; the physiognomy is fixed and changeless, but the muscles of the face are in a state of convulsive tension, and express sadness, fear and terror; the eyes are motionless, and either directed towards the earth or some distant point, and the look is askance, uneasy and suspicious."

Among the common physical symptoms are a quickened or a slow, compressible pulse; an unnaturally red, or perhaps extremely foul and coated tongue, constipation, dryness of the hair and skin, sleeplessness, and the "peculiar odor" so common with insane persons. This group of symptoms often gives rise to the opinion that one has to deal with some kind of a continued fever complicated with delirium, as in typhoid. After a longer or shorter time, however, these accessory symptoms subside, and the persistence of the delirium as well as the nature of the false belief leaves no doubt as to the nature of the disease.

In women the uterine functions are often disturbed, and are suspended in the large majority of cases. In men, the reproductive instinct is usually in abeyance.

Frequently there is pain in the head, epigastric uneasiness, and a fluttering or burning sensation. This is especially noticeable in cases of hypochondriacal melancholia, where the apprehensions are generally limited to the patient's own bodily infirmities, upon which he at all times loves to dilate.

Loss of sleep and disturbed dreams will frequently claim our attention at an early stage. In some cases the dread of falling asleep is intensely agonizing, from the anticipation of dreaming, and awaking with horrible sensations.

Changes in the countenance will attract our notice. The pinched contracted features express anxiety and suffering, the brows are knit, the eyes cast to the earth, the figure motionless and insensible, indicating a profound concentration of thought; in the melancholy with stupor this immobility of feature becomes so great that it seems as though a mask were worn. The mouth is half open, the lower lip hangs down, the nostrils are covered with dust and dirt, and the expression is stolid and foolish, in a word the appearance is similar to that of one with typhoid.

The attitude equally denotes great dejection; the movements are slow and undecided; short steps are taken in walking, the feet are scarcely raised from the ground, and it is necessary to urge the person in order to have him dress or undress. If the depression increases they remain motionless, the head bent upon the chest, the arms extended inertly along the body, the knees half bent, and they scarcely seem able to sustain their own weight. In other cases "the melancholy induces a still more passive attitude; the arms hang loose at the side, the hands are open, and the muscular system is relaxed altogether; at other times, grief intensifies the action of the muscles; the patient's arms are rigidly flexed; the hands clasped and pressed against his chest, or he wrings them in all the bitterness of despair."

In melancholia with stupor, the inspirations instead of being full and regular, and accompanied by a regular rising of the chest-walls and a clear vesicular murmur, lose their physiological character. The thorax is hardly raised, and the vesicular murmur is so weakened as to be hardly perceptible. In some cases six or seven weak inspirations are followed by one stronger one. In others the inspiration is jerky as if it were composed of a number of secondary ones.

The inspirations not only lose their fulness, but become much too slow for the number of pulse-beats. In a state of

health there exists a certain proportion between the number of pulsations and inspirations. If we examine the *stupid* melancholic, we find that the number of respirations is relatively less than it should be, and consequently the blood is imperfectly oxygenated and the usual evil results follow.

In melancholia the digestive functions are disturbed, the appetite is poor, and the amount of food taken is small. The patient eats slowly and requires constant urging; digestion takes place slowly and assimilation is defective. Constipation is generally complained of; this is due to the small quantity of food taken, to the diminished secretions from the alimentary canal, and to the weakened contractable power of the intestines. This condition should be guarded against, for it is capable of producing serious disturbances of the nervous system, hallucination, etc.

"Melancholics complain," observes Dr. Conolly, "when any distinct complaint is made, of uneasy sensations in the epigastrium, in the left hypochondrium, or other parts of the abdomen; of a feeling of fluttering, drawing, gnawing, or tearing. They even refer a sense of terror to the epigastrium, accompanying a feeling of having done wrong, without knowing what. These sensations sometimes alternate with uneasiness referred to the forehead and occiput, or to the portion of the head corresponding with the superior and lateral boundaries of the occipital bone."

For my notes upon the medical treatment of this as well as the other forms of insanity I am largely indebted to the kindness of Dr. Selden H. Talcott, Superintendent of the State Homœopathic Hospital for the Insane at Middletown, New York, who has furnished me with some of the results obtained at that institution.

Melancholia and mania, alternating as they do so frequently in some patients, often require similar remedies. It is not the name of a disease nor, indeed, the supposed pathological condition, which must always be a matter of uncertainty, but the array and totality of the symptoms that indicates the choice of a drug. Still for purposes of convenience we sometimes group under the name of a disease, certain drugs most often of service in the cure of that disease.

Digitalis rises to prominence in this connection, not so much by reason of the fame it has acquired in "the books," but on account of the effects following its use when homœopathically indicated. It is mostly of use when the patient is in a dull lethargic condition; the pupils are dilated to their widest, yet all sensibility to light or to touch seems lost; the pulse is full, regular, or but slightly intermittent and *very slow*. The slow pulse is the grand characteristic, and upon this indication Digitalis may be given with much assurance that relief will follow speedily, if relief be possible. We notice that the Digitalis patient, when rallying from his melancholic stupor, often moans a good deal, and his eyes are all afloat in tears. Relief, however, speedily follows the bursting of the lachrymal fountains.

It has long been supposed and advocated that Aurum met. was the princely remedy for suicidal melancholia. But the experience at Middletown does not fully sustain this idea. Dr. Talcott says: "Aurum has often been prescribed in such cases, but usually without good results. Another remedy which we have tried repeatedly has generally hit the case most happily; and that remedy is Arsenicum. My mind has been exercised in solving the mystery of Arsen.'s happy effect in cases of suicidal tendency, while the much vaunted Aurum has repeatedly failed. Our conclusion is this, the patients whom Arsenicum has relieved have been those whose physical condition would warrant the administration of that drug. They have been much emaciated; with wretched appetites; a dry, red tongue; shrivelled skin; haggard and anxious in appearance, and evidently great bodily sufferers. It would seem as if the mental unrest of these patients was due, in the main, to physical disease, and consequent exhaustion, and their desire to commit suicide is evidently for the purpose of putting an end to their temporal distresses. On the other hand the suicidal patients whom Aurum has seemed to benefit are usually in fair health, physically; but have experienced some unfortunate disaster of the affections, or have had trouble with friends; they fancy they have been slighted, persecuted and wronged, and out of revenge or disgust for the irksome

trials of life seek an untimely end by their own hands. But each drug has its own individual sphere beyond which it becomes a useless agent." You will probably find in private practice, as I have, that Aurum is more generally called for than Dr. Talcott's remarks would indicate; but the Aurum patient frequently escapes being sent to the hospital. I have found Aurum very useful in cases of suicidal melancholy in connection with the climacteric, especially when there is great dislike to seeing men, and desire to be alone; also great irritability; all the symptoms aggravated at the full of the moon. I remember one patient with the above symptoms who invariably at the period of full moon was strongly impelled to throw herself out of the chamber window. Aurum completely cured the case. Actea rac. or Cimicifuga should be kept in mind in suicidal melancholy.

Aurum has as characteristics:

Disgust for life; suicidal tendency.

Melancholy: he imagines he is unfit for this world, and longs for death, which he contemplates with delight.

Great anguish, increasing unto self-destruction, with spasmodic contraction of abdomen.

Peevish and violent, the least contradiction excites his wrath.

Religious mania; prays all the time.

Very apprehensive and fearful; a mere noise at the door makes one afraid.

Loss of confidence in oneself.

When we see a patient suffering with melancholia, who is constantly moaning and muttering to herself, walks all the time, looking down; is disinclined to talk, and angry, if any one speaks to her; tries to get away from her friends, if they seek to comfort her: sleepless at night and uneasy during the day, Chamomilla may be given with satisfactory results.

Natr. mur. affords relief to patients given to much crying, their continuous weeping being of the open kind, while the grief of the Ignatia patient is more passive and concealed. Natrum also has:

Difficulty of thinking; absence of mind; weakness of mem-

ory, and will-power; fondness for dwelling on unpleasant trifles; is joyless, indifferent and taciturn.

Schüssler gives us for Natr. mur.: sadness, with beating of heart; avoids company, being too easily vexed; hates people who had offended him; wrathful; much disposed to weep; hasty; shuns labor; sparing of words; much excited; and after it numbness of limbs.

Bayes describes well the passive hypochondriasis of this drug, when he says: "There is a sort of hopeless despairing feeling about the future, accompanied by dryness of the mouth, irritable mucous membrane, often with sore tongue and slight ulceration, and almost invariably chronic constipation with hard stools."

Hering gives us: weariness in the head; vertigo, as if a cold wind were blowing through the head; debility and emaciation.

The Pulsatilla case has the general appearance of the person requiring that remedy: she weeps easily, but smiles through her tears, and is readily pacified for the time being, but as quickly relapses into the depths of sorrow when the words of comfort cease.

The Cactus patient is sad and hypochondriacal, and has frequent palpitations of the heart, with a corresponding palpitation, so to speak, in the top of the head. Thuja will benefit those patients who have a tenacious hold on one idea, and indulge in the strangest and most unnatural fancies. Such cases are quarrelsome and talkative, or very reticent; won't speak to nor look at a person, and manifest great disgust if spoken to by others. Thuja also has the following important mental symptoms, some of which are frequently present. The patient cannot think, talks slowly, as if hunting for words, and uses the wrong words.

Fixed but mistaken ideas; as if a strange person was at his side; as if soul and body were separated; as if made of glass; as if a living animal were in the abdomen.

Extremely scrupulous about the least trifles.

Cannot bear to be approached or spoken to (like Chamom.).

Lilium tigr. and Sepia find important place in the treatment of depressed and irritable females. The troubles of such cases

originate largely in the mal-performance of duty on the part of the generative organs. Both Lilium and Sepia are full of apprehensions, and manifest much anxiety for their own welfare. In the Sepia case, however, there is likely to be found more striking and serious changes of the uterine organs; while the Lilium case presents either functional disturbances, or very recent and comparatively superficial organic lesions. Lilium is more applicable to acute cases of melancholia where the uterus and ovaries are involved in moderate or subacute inflammation, and when the patient apprehends the presence of a fatal disease, which does not in reality exist. The Lilium patient is sensitive, hyperæsthetical, tending often to hysteria. She quite readily and speedily recovers, much to her own surprise, as well as that of her friends, who have been made to feel by the patient that her case was hopeless. The Sepia patient is sad, despairing, sometimes suicidal, and greatly averse to work or exercise. There is, however, oftentimes, a good reason for such a patient's depression, for too frequently she is the victim of profound organic lesions which can, at best, be cured only by long, patient and persistent endeavor. The Lilium patient is more demonstrative and excitable than is the Sepia case.

The following cases will illustrate the sphere of Arsen. alb. in melancholia.

Case 1.—Melancholy in an old lady, nearly seventy years old, who had lost all love of life, and sat brooding for hours in a corner; had no appetite; her tongue was heavily coated; stool once in seven or eight days; entire sleeplessness. All this came on after a scaly itchy eruption upon the head and behind the ears had disappeared. Arsen. alb. high, brought the eruption back and cured the case.

Case 2.—Mr. B., artist, æt. 43. In ten years has had four attacks, and during the last one was in an asylum five months. Thinks himself guilty of every imaginable crime; worse at night, with palpitation of heart; fears to be left alone, yet must be kept in his room by force, despair of getting well, cured by Arsen.[3], a dose each evening.

Dr. Whiting, of Danvers, reports the case of a man who

"fears he will be impelled to destroy his life; with asthma, so that he has to leave his bed from midnight until morning. Arsen. one dose cured the case."

Argent. nitr. is a remedy which is very important, especially in cases with a taint of epilepsy; you will be led to study it by the following symptoms:

Loss of memory; cannot find the right word, hence falters in speech (similar to Thuja).

Dulness of the head, tendency to fall sideways.

Thinks about killing himself.

Indisposed to work; reserved; taciturn; easily frightened, or angered.

Cimicifuga or Act. rac. is a remedy which has not as yet been extensively used in melancholia, but when you meet patients, especially at the climacteric period, who are desirous of being alone, and dislike to talk; who like to sit by themselves and weep, and declare that they will go crazy, you will find Cimicif. a capital remedy. I alluded to it at another part of the lecture as being of use in suicidal melancholy, and I have for such cases given the lower dilutions such as the 2d or 3d dec.

Of course Ignatia will at once occur to the minds of you all as being preeminently a remedy for melancholy. The following case illustrates its action: "Melancholy after deep mortification; heaviness of the head; very great weakness of the memory; forgets everything except dreams; hardness of hearing; sees everything as if through a fog; sits quietly, always with a vacant gaze; thinking of the mortification endured prevents him from going to sleep as early as usual; restless sleep; starts during sleep from much dreaming; pain in the left hypochondria, increased by pressure and continuous walking. Loses his hair, face colorless, hollow; voice low and trembling with distortion of the muscles of the face; does not like to talk; no desire to eat or drink; appetite is very soon satisfied. Always feels cold, especially in the evening. Very weak, staggering walk; walks carefully. Increased stool and urine. Ignatia cured.

Ailments arising from grief, mortification, bad news, disappointed love or jealousy often require Ignatia.

Pulsatilla.—The following group of symptoms call for Pulsat.: After mortification, sad, gloomy and weary of life. Often pain in the forehead, earthy face, dark rings around the eyes; bitter, sapid taste in the mouth; dislikes meat and bread; nausea, with pain in stomach; occasionally bitter slimy vomiting; frequent profuse nose-bleed; stitches in the side with coughing, with frothy, bloody expectoration. Palpitation of the heart; labored breathing, hard scanty stools; frequent cutting pains in the bowels; heaviness of the legs; limbs feel bruised; anxious dreams; thinks of drowning with great pleasure; is sad; bursts into tears; dissatisfied with everything; easily enraged; reticent; very easily frightened; anxious, and weary of life.

Indications for the use of Fourteen Remedies in the Treatment of Insanity.

The following indications for a few of our most commonly indicated remedies have been collated by William M. Butler, M. D., First Assistant Physician of the State Homœopathic Asylum for the Insane, at Middletown, N. Y.

These indications are such as have been found reliable in the treatment of the insane at that institution.

ACONITE.

Mind.—Great fear of approaching death, of darkness, and being alone; constant excessive anxiety; confusion of mind, weakness of memory, unsteadiness of ideas, and disinclination for mental labor; variable humor, at one time gay, at another sad; irascibility and fretfulness.

Head.—General heat of head, with a sensation of fulness and severe pain, especially in frontal region; face red and swollen, or alternately red and pale; mouth dry and parched.

Sleep.—Sleeplessness or sleep disturbed by unpleasant dreams.

Accompaniments.—Oversensitive to noise, smells and light; constant excessive thirst and loss of appetite; dysuria, or frequent urination, urine hot and dark colored; oppression of

chest with difficult respiration; hot skin and full, rapid pulse, often muscular pain and soreness, with general tired feeling.

This remedy is chiefly useful in acute cases, where the disease has been caused by over-heating, or some violent emotion, as great fright, joy, or anger, and when, with the mental symptoms, we find an exalted condition of the general circulation.

ARSENICUM.

Mind.—Excessive anguish, with irresistible desire to commit suicide; great fear of sudden death, ghosts and thieves; hallucinations of sight and hearing; hears voices, sees demons, rats, mice, bugs and worms, from which he attempts to escape by hiding; indisposition to mental or bodily work; ill-humor, with great sensitiveness to insult, and disinclination to look at anyone or answer questions; great mental anxiety and restlessness.

Head.—Great heaviness and weight, with a feeling of stupefaction in head, accompanied by a humming in ears; worse in-doors; better in the open air; severe pains in the face and head, especially in the left side; worse in the evening and at night; relieved by warmth; face pale, yellow, cachectic, or covered with a cold sweat, and expressive of intense mental agony; great dryness of mouth and tongue.

Sleep.—Sleeplessness or fitful disturbed sleep; worse after midnight, with disinclination to remain in bed.

Accompaniments.—Violent thirst with loss of appetite, and burning pains in stomach and bowels, with inclination to vomit; black, acrid, putrid stools, burning at the anus like fire; involuntary micturition; suppression or scanty discharge, burning during emission; oppression of the chest with difficult breathing and palpitation of the heart, especially when lying down at night; excessive restlessness, with quick, weak, irregular pulse, and general condition of exhaustion and prostration.

Arsen., is one of our most valued remedies, and is especially indicated where the insanity has been produced by causes which have greatly exhausted and debilitated the patient's general condition, as from anxiety, overwork, loss of sleep, and

a diseased condition of the mucous membranes generally, and particularly of the stomach, thus preventing the proper digestion and assimilation of food.

BELLADONNA.

Mind.—Furious delirium with great rage, biting, striking, spitting and tearing everything within reach; fear of dogs, wolves, giants, fire, and horrid monsters filling the room; foolish and obscene talking, laughing, dancing and gesticulating; mirthfulness, with singing and laughing, or depression with moaning, groaning and fear of immediate death; anxiety, anguish, trembling and constant restlessness; cerebral exaltation, or confusion of mind with loss of memory; stupidity and loss of consciousness; excessive nervous excitability of all the senses.

Head.—Intense digging, jerking pain, especially through the forehead and temples, with vertigo, pressure, great heat and violent throbbing of all the cerebral vessels; eyes congested, swollen and protruded, pupils dilated, face extremely red and swollen, pains aggravated by stooping, noise, motion, mental exertion, moving the eyes, shocks and open air; relieved by rest, lying down, pressure and bending the head backward; dryness of nose, mouth, tongue and throat, interfering with speech and deglutition; everything seems red, double, upside-down or crooked.

Sleep.—Sleeplessness, or sleep disturbed by anxious, frightful dreams, or frequent startings as in affright; drowsiness with inability to fall asleep.

Accompaniments.—Excessive thirst or aversion to all liquids; pulse full, quick and much increased in force and frequency, with red skin and increased temperature; excessive tenderness of the abdomen, which cannot bear the slightest touch; violent pressing and urging towards the sexual organs as though everything would fall out there; worse on sitting bent and walking, better on standing and sitting erect; menses too soon, profuse, bright-red or thick, dark-colored and offensive; badly smelling hemorrhage from the uterus.

In two forms of insanity Bellad. has proven itself preemi-

nently curative. Acute mania attended with great excitement, violence and destructiveness, and accompanied by the characteristic cerebral congestion, and in melancholia, where the mind is extremely dull, stupid and slow to act, with great heat of head, dilated pupils, congestion of the eyes, full pulse and persistent sleeplessness. In the former class of cases we have found the 30th potency most effectual, while in the latter, frequently repeated doses of the 1st potency, or even the tincture, have been necessary to achieve the desired result.

CALCAREA CARBONICA.

Mind.—Despondent and melancholic; great anxiety and apprehension of some misfortune or impending evil, as sickness, insanity or immediate death; irritability and peevishness; unsteadiness of ideas; anxious, then cheerful and pleased; kind and calm, then angry and vehement, hopeful, then desponding; weakness of memory with dulness and confusion of mind.

Head.—Constant feeling of fulness in the head; pressure in forehead extending down into nose; sticking pain in left side of head, relieved by closing the eyes; coldness in and on the head; ringing and roaring in ears; offensive smell in nose; white-coated tongue, with offensive or sour taste in mouth; face pale, eyes deep-seated and surrounded by dark rings.

Sleep.—Sleepiness during day with difficulty of getting asleep at night; sleep disturbed by dreams of dogs, fires, corpses and death.

Accompaniments.—Ravenous hunger or loss of appetite; abdomen much distended; oppression of chest with shortness of breath and palpitation on going up the slightest ascent; glandular swellings; menstruation too early; leucorrhœa like milk; great exhaustion, with loss of power on walking, and inability to go up stairs; feet and hands cold; night-sweat, and sweat during day on slightest exertion; especially indicated in cases of melancholia, in women of scrofulous diathesis and leucophlegmatic temperament.

DIGITALIS.

Mind.—Great anxiety; depression and dread of the future,

with sadness and weeping; worse about 6 P.M., and aggravated by music; morose, irritable and gloomy; weakness of memory; mind dull, stupid and confused.

Head.—Heavy and confused as if full; throbbing headache in forehead or at bottom of the orbits; pupils dilated, red, yellow, green, black and white colors before the eyes; hissing and roaring in the ears; face pale and sickly.

Sleep.—Sleep uneasy and unrefreshing; troubled by frequent waking.

Accompaniments.—General appearance of weakness and exhaustion; appetite poor; respiration irregular and difficult; pulse slow and weak, or slow and full, often intermitting with sensation at times as if the heart stopped beating, accompanied by great anxiety, faintness, sinking at the stomach, and general coldness of skin and extremities.

This drug, although little known as a remedy in mental disorder, is, in reality, of the greatest importance. It's chief indication is a slow pulse. Whenever a case is found of mental disease of whatever form, presenting this symptom, attended by a general appearance of exhaustion and debility, a prompt and satisfactory improvement is sure to follow the exhibition of Digitalis.

HYOSCYAMUS.

Mind.—Insensibility and loss of consciousness; does not recognize those about him; great mental excitement with constant foolish talking, laughing and singing, or rage with attempts to strike and bite; sexual excitement with inclination to remove the clothing and go about naked; obscene talking; jealousy; great apprehensiveness; fear when alone, with fear of being poisoned or bitten by animals.

Head.—Constricting stupefying headache in the upper part of forehead; eyes red, wild, sparkling with dilated pupils; objects look red or too large; face red and flushed or pale; twitching of muscles of face.

Sleep.—Very deep sleep or sleeplessness.

Accompaniments.—Dryness of mouth, tongue and throat, with difficulty of swallowing; micturition frequent and scanty, or

retention of urine, or involuntary urination; increased sexual desire; general muscular twitching and jerking.

This remedy is most efficacious in mania of hysterical females, characterized by excessive talkativeness and inclination to laugh and sing; or puerperal mania with sexual excitement; in cases refusing to eat from fear of poison it seldom fails to remove the delusion. Although frequently effectual in reducing the sexual excitement of patients inclined to expose themselves, it seldom proves beneficial in masturbation, and time spent in waiting for its action in such cases is simply wasted.

LACHESIS.

Mind.—Depression with a tendency to look constantly upon the dark side; nightly fear of disease—death, robbers; mistrust and suspicion with fear of being poisoned; peevish, irritable and quarrelsome, with a disposition to find fault with others; great mental activity with excessive loquacity, wandering constantly from one subject to another, or confusion of mind; weakness of memory and difficulty in listening to others

Head.—Pressure in the orbits with sensation of drawing from the eyes to the occiput; unilateral headache creeping gradually toward the left side until it makes a complete circuit of the head; unilateral, temporal pain—blue vision preceding headache; worse after sleep; dimness of vision with black flickering before the eyes.

Sleep.—Wide awake, restless, and talkative at night, or restless sleep with aggravation of symptoms on awaking.

Accompaniments.—Dryness of throat, sensitiveness of larynx and throat; the slightest constriction from clothing producing cough and a sensation of suffocation; great physical and mental exhaustion, especially in morning.

Laches., although not as frequently demanded as many other remedies, is, at times, useful in melancholic, hysterical females near the climacteric, or in mania attended by excessive talkativeness.

LILIUM TIGRINUM

Mind.—Depression of spirits; constant inclination to weep, with fearfulness and apprehension of suffering from some ter-

rible internal disease already seated; fears of becoming insane; suicidal thoughts; irritable and impatient with an inclination to profanity and obscurity; constant hurried feeling as of imperative duties, and utter inability to perform them, with sexual excitement; disinclination to mental or bodily work from inability to apply the mind steadily to any object.

Head.—Intense pain in both eyes extending backward into head with dimness of sight; shooting pains in right temple, passing to left; intense, blinding frontal headache from five to seven o'clock P. M., then changing to occiput and extending down neck, or pressing frontal pain with heat.

Sleep.—Sleeplessness or restless sleep.

Accompaniments.—Increased sexual desire; great bearing down in uterine region with a sensation as if the whole pelvic contents would issue through the vagina, if not prevented by upward pressure of the hand on the vulva; severe pain in the left ovary, running down; thin, brown, acrid leucorrhœa; constant pressure on rectum and bladder, causing frequent desire to go to stool; frequent urination followed by smarting and burning in the urethra; sharp, sudden pain in the left chest; with sensation as if the heart was grasped, interrupting the heart's action and respiration.

This remedy has no superior in hysteria with uterine displacements, and marked ovarian irritation, complicated by frequent neuralgic attacks of the left ovary.

NUX VOMICA.

Mind.—Obstinate, cross, irritable, ugly and quarrelsome; violent upon the least contradiction; extraordinary anxiety and restlessness; oversensitive to noise, music, singing, talking, strong odors or light; obstinately taciturn, hypochondriacal, inability for mental work.

Head.—Dull, pressive pain in forehead and above the eyes, as if one had not slept enough; headache in the forehead as if the eyes would be pressed out; headache worse after eating, followed by violent stitches in left temple, with nausea and sour vomiting, disappearing in evening after lying down; sensation as if the head were larger than the body; tongue coated white; bitter or sour taste in morning, with offensive breath.

Sleep.—Sleepiness early in evening; wakefulness in the middle of the night, followed by troubled sleep until late in the morning; arising reluctantly, tired and unrefreshed.

Accompaniments.—Ravenous hunger or loss of appetite; pressure in the stomach with constant nausea, and cutting pains in abdomen, worse in the morning and after eating; constipation with much tenesmus, and frequent ineffectual attempts at stool; retention of urine or dysuria; muscular twitching and trembling; sensation of ants crawling upon the skin; general increased sensibility.

This is one of the few remedies brought into constant use in the treatment of insanity; it is especially adapted to individuals of sedentary habits; long subject to mental strain, and "high-livers" suffering from chronic weakness of the digestive organs.

PLATINA.

Mind.—Arrogant and proud; everything and every person seems small and inferior; patronizes or treats with contempt all about her; considers none her equal, physically or mentally; changeable, one day joyous, the next sad; lachrymose, fretful, morose and tired of life, but with great dread of death, which she believes near at hand; peevish, anxious, sensitive, excitable, absent-minded and forgetful.

Head.—Cramp-like, drawing constriction in the head from time to time, especially about the forehead, commencing slight, increasing until violent and ending slight; tense, numb sensation in the zygomata and mastoid processes, as if the head were screwed together; numb pain on top of vertex, as if a heavy weight were lying on it; crawling-like formication on the right temple, and down the lower jaw, with a feeling of coldness in it; sensation in tongue as if burned.

Sleep.—Sleep disturbed by dreams.

Accompaniments.—Empty eructations, constipation and pressure in lower abdomen; menses too early and profuse; blood dark and clotted, with great sensitiveness of genitals; increased sexual desire in females; numbness, coldness and crawling sensation in different parts of the body.

Although not having as wide a sphere of action, or being as

often indicated as many other remedies, Platina is still of great importance in diseases of the brain. It is especially indicated as an intercurrent remedy in hysterical females, afflicted with melancholia, or possessed of delusions of greatness and grandeur occuring in connection with its characteristic menstrual derangements.

SEPIA.

Mind.—Nervous; sensitive to the least noise; sadness; worrying about her health and the future, with frequent attacks of weeping, worse in evening and in open air; fits of involuntary laughter or weeping; dread of being alone; very irritable; indifference towards those she loves best; indisposition for mental work, with weak memory and difficulty in expressing her ideas; indolent mood.

Head.—Pain shooting from forehead to vertex and both sides of the face; drawing, tearing pains, sometimes stitches as of needles in right side of head; severe pains in left temple, or occasional darting pains from left eye over left side of head towards the occiput; worse in evening, better after meals; intense frontal headache; pressive pain in vertex; yellowness of whites of eyes; fiery sparks and black spots before the eyes; yellow spots on the face and yellow saddle across the upper part of the nose and cheeks.

Sleep.—Restless sleep, disturbed by anxious dreams, awaking in a fright.

Accompaniments.—Weak, empty, gone feeling in stomach; frequent desire to urinate; urine thick, slimy, very offensive, with yellowish or red sediment; prolapsus uteri, with great bearing-down pains, as if all the pelvic contents would issue through the vulva; dull, heavy pain in ovaries; profuse yellowish or white, acrid, offensive leucorrhœa; tired pain in small of the back, with great weariness, exhaustion and prostration.

This remedy is chiefly indicated in the treatment of women whose insanity has been caused by uterine displacements, and whose general constitution has been sapped by a long standing debilitating leucorrhœa. Although not usually rapid in

its action, it is almost certain to restore to health the diseased sexual organs, and with this restoration sound mental health returns.

STRAMONIUM.

Mind.—Fearful delusions of men, ghosts, dogs, cats, rabbits, bugs and flies springing up around him, with violent endeavors to escape; worse in dark and when alone; imagines that he has been killed, roasted, and is being eaten; that he is very tall and large, surrounding objects seeming to him too small; hallucinations of hearing, music, dancing and voices; mania, with constant incoherent talking, screaming, laughing or crying; merry exaltation with pride and affectation, or furious, almost uncontrollable, rage and violence, with desperate attempts to bite, strike and injure those around; melancholia, with crying, fear of death, and despair of salvation; stupor and inability to recognize friends.

Head.—Sensation of lightness in head, headache in both temples, shooting to occiput, with thirst; sticking, stabbing pain in right temple; beating headache, particularly in vertex, with fainting fits; headache on waking in morning; face red and swollen, eyes wild and staring, pupils dilated and insensible to light; lips tremulous; tongue immovable or protruded with difficulty; inability to swallow, or swallowing with difficulty.

Sleep.—Drowsiness, with deep, heavy sleep; sleeplessness or sleep disturbed by frightful dreams.

Accompaniments.—Suppression, retention or involuntary passage of urine; increased sexual desire; trembling or convulsive twitching of limbs; oversensitiveness to noise.

The therapeutic sphere of Stramon., from its symptomatology and the writings of various authors, we suppose to be in acute mania, characterized by more intense excitement than Hyosc. or Bellad., and with less cerebral congestion. From the wonderful curative effects assigned to it, we had expected to achieve some marked results, but thus far we have been doomed to disappointment. After many trials, with apparently clear indications for its use, we are forced to admit that we have seen but few positive results from this drug.

SULPHUR.

Mind.—Melancholia, with disposition to weep, wishes to die, but fears for her salvation; inclined to dwell upon religious things; apprehensive of future misfortune; variable mood, one moment crying, the next laughing; indisposition to mental or physical labor, with slowness of mind and body; great absence of mind and forgetfulness; peevish and irritable; dresses herself in rags and imagines that she is beautifully clothed.

Head.—Constant heat in top of head; shooting pains in forehead and temples from within outward; worse from eating or stooping, better when pressing the head and when moving; pressing, dull pain in vertex and sinciput rousing from sleep early in morning, ceasing before noon.

Sleep.—Drowsiness during day and wakefulness at night; unrefreshing sleep, disturbed by frightful dreams.

Accompaniments.—Faint, weak sensation in stomach about 11 A.M.; much thirst with little appetite; constipation with hemorrhoids, or tendency to early morning diarrhœa; burning in vagina; menses too early and profuse and lasting too long, with flushes of heat and weak, faint spells; feet cold or burning in soles of feet; skin covered with pimples, burning and itching, easily ulcerating after scratching; sensation of insects crawling on skin of face, with itching increased by heat of bed; sensation of something running from chest to throat, causing a feeling of choking in throat; frequent general flashes of heat, with faintness.

Sulphur is exceedingly useful as an intercurrent remedy in many chronic cases where the psoric element predominates. It is also frequently useful as a developer, bringing out symptoms at first hidden and unapparent, or reviving the suspended action of an indicated drug, causing the patient to go on to a rapid recovery. It seldom effects a cure unaided by other drugs.

VERATRUM ALBUM.

Mind.—Melancholia, with anxiety, as if she had committed an evil deed; sadness, despondency and grief, with involun-

tary weeping and despair of her salvation; fearful and apprehensive of misfortune; mind dull and stupid with obstinate taciturnity; delusions, of being a prince, a hunter; of being deaf and blind, pregnant and in labor; violence, with inclination to tear and cut everything; much lascivious and profane talk; noisy; wants to escape; can scarcely be held.

Head.—Paroxysms of pain in various parts of the head; frontal headache with nausea, vomiting and fever; pressive pain in the top of head; cold spot on vertex; face pale; eyes fixed and sunken, with blue or green circles around them; nose cold and pointed; cold sweat on face and forehead.

Sleep.—Sleeplessness or sleep disturbed by bad dreams.

Accompaniments.—Great thirst for cold drinks; ravenous hunger or loss of appetite; frequent inclination to nausea and vomiting; constipation or exhaustive diarrhœa; excessive weakness and sudden sinking of strength; skin blue and cold; pulse frequent small and weak, often intermittent, at times almost imperceptible; defective circulation with general appearance of lowered vitality.

This remedy has a wide range of action in mental disease. Its reputed efficaciousness in puerperal mania we have not had sufficient opportunity of verifying, but its effects in mania and melancholia with stupor have been most gratifying. It is especially efficacious in the apparently most hopeless cases, where the patient sits in a stupid manner, with the head bent forward, taking no apparent notice of anything, answering in monosyllables, or not at all; often eating nothing, unless fed; skin cold and blue; pulse weak and intermitting. With the foregoing symptoms we have occasional fainting spells, with temporary unconsciousness and suspension of the heart's action. Under the influence of Veratr. the depressed vital powers are soon revived, and the patient advances to a complete recovery. After a seeming recovery, the patient is liable to a relapse, if the medicine is too soon discontinued, but when once the cure is fully accomplished it remains permanent.

LECTURE IX.

Mania.

The condition of mental disturbance which goes by the name of mania is almost always consecutive to a more or less marked degree of melancholia. The transition may be gradual or rapid, well defined or uncertain, and it is often difficult to say at what particular moment one state ends and the other begins. The opinion is becoming prevalent that melancholia and mania are simply different stages of one disease.

Griesinger quotes Guislain as follows in speaking of melancholia: "These transitions and transpositions are not made suddenly; the patients pass from one to another by innumerable intermediate degrees, which present so to speak, all the states of admixture in a thousand different ways. Hence one must conclude that all these groups of symptoms, out of which one has striven to make several diseases, form different degrees of the self-same morbid state, and that which proves it is, that in an accession of mania which manifests itself in a melancholic patient, one observes in succession the greater part of the phenomena indicated."

Neumann in his work discards melancholia from his classification of diseases on the following ground: "It is unscientific," he says, "to talk of one morbid action complicating another, or that the concrete case is due to other than a single morbid process; for instance to call the pericarditis of rheumatism a complication or a metastasis of a morbid process, and not a single morbid phenomenon resulting from the original and single process is unscientific. Therefore to speak of a case of insanity commencing by one species of mental disease, developing itself into a second and finally terminating by becoming a third is simply absurd." Hence we should simply consider these as all stages of one and the same disease, and furthermore, besides the difficulty of separating one stage from the other, there are many cases which by some physicians would

be designated melancholia, and by others mania, while in some cases the two forms alternate.

We first present a case reported by Dr. Sankey, which shows how mania and melancholia may blend in the same person.

Case: A young woman left her place telling her parents she was going to be married. She went, however, to cohabit with a man, and shortly afterward became melancholy and went to her father who took her in; she would then, he reported, sit and cry for hours. She had been at home a month, when she broke a window; said that the devil and witches came to tempt her, and to get her into hell. She also attacked her parents. She was taken to a hospital, and the following is the patient's condition while there as given by the medical officer: She is generally taciturn, or answers with an hysteric laugh. This morning she seized the nurse by the hair, and said she "could read her, she was a devil, and she would dash her brains out." On admission the expression of the countenance was vacant and dull. She was indisposed to speak; she was rude in her conduct and in her mode of answering, and she struck one or two of the patients.

Thus an ordinary attack of insanity, beginning with perhaps only a trace of melancholia, may terminate by becoming a case of mania; or may continue partly melancholia, but mixed with maniacal symptoms; or the case may throughout exhibit depression and terminate in chronic mental disease with some permanent mental defect, such as a fixed delusion, an alteration or eccentricity of habit, and pass into mental imbecility.

In this chapter we will consider those cases in which the depression of spirits is quite transient, and the opposite condition or elation of mind is the predominating feature, which assemblage of symptoms makes up what is usually known as mania.

The word *mania* is derived from the Greek *μαινομαι*, to be furious; but other writers refer it to the word *μηνη*, the moon, whence the Greek, maniac, moonstruck, and the Latin, lunatic.

The symptoms of maniacal insanity are connected with the emotions, the intellect and the motor functions. The emotions are, as already stated, painfully affected in the premonitory or

melancholic stage of mania; this depression is of variable duration. Occasionally there are cases, as Esquirol has observed, in which persons "sink into a deep stupor, appearing to be deprived of every thought and idea. They do not move, but remain where they are placed, and require dressing and feeding. The features of the face are contracted, and the eyes red and glistening. Suddenly, mania bursts forth in all the strength of its delirium and agitation."

At other times this period of incubation is scarcely observed by the patient's friends, or, at all events, it is not voluntarily acknowledged by them when questioned as to the onset of the attack. It escapes their notice for several reasons. In the first place, the melancholic cloud that passes over the patient's mind does not materially differ from the natural depression of spirits in sane minds; and second, in the first stage of all cases of mental disease, the intellect proper, the reason, judgment, etc., remain comparatively unimpaired, so that the friends see no sign of *mental* disease, until some very striking outbreak of violence or departure from rational conduct ensues; then this very outbreak at once eclipses all foregone impressions, so that on examining a case you have to inquire closely as to the first or premonitory symptoms, especially as in many cases, the melancholic stage will have passed ere medical aid is sought and you see the patient.

Esquirol and Bucknill assert that what is ordinarily understood as *fury* is not identical with mania. "If maniacs are more frequently furious than other insane persons, it must be attributed to their temperament, their extreme susceptibility, and the exaltation of all their faculties; circumstances which render them exceedingly impressible, and consequently very irritable and choleric." "All that can be said is, that one or more of the passions is almost always exalted in mania, and that a furious condition, although not constituting an essential symptom, is *very generally* present in the acute form. It is essentially a disorder of the impulses or propensities; although in the vast majority of instances the purely intellectual functions are more or less disturbed."

With respect to the emotional symptoms, there is often a

strange mixture of hilarity, depression, excitement and grief; the instinctive feelings and sense of propriety and of personal cleanliness are impaired or lost; the patient appears at times indifferent to the most disgusting objects; some become filthy in the extreme, pass their feces in the bed, or room, and besmear themselves from head to foot, and this seems almost a characteristic of the disease it is so common. They will eat dirt, filth, and the most disgusting substances; they are totally unmindful of decency, not apparently with any lewd intent, but from an apparent loss of the normal feelings on this subject. And it would seem that the more refined and delicate the women were when sane, so much the deeper do they sink in vileness and obscenity of speech and conduct when insane.

The delirium in mania has much of the character of frolic and boisterous excitement; there is not in the acute stage the scowling of the resentful madman, but rather a violence of muscular, motor irritability. Maniacal patients are not necessarily irascible; they run, jump, throw themselves down, beat their heads against the wall, break or jump through doors and windows, shout, scream and swear, whistle and sing, and consequently are almost always hoarse; they tear off their clothes, and go about in a condition of disorder, their shoes off, stockings down and hair dishevelled.

As a rule such patients retain a remembrance of what transpires during such attacks, except when they are consecutive to, and form part of, an epileptic paroxysm, in which case the acts of violence seem accomplished in a blind and automatic fashion.

Incoherence is one of the most notable symptoms in mania, and it may be present to a varying extent. The ideas chase and follow each other rapidly and in great disorder. The maniac may answer a question correctly, but in a moment will ramble again from the point, and speech is so rapid and rambling that it is often very difficult to ascertain the presence of delusion. They cannot be made to attend long to the questions asked. We have to deal with an over-excitable state of the mind rather than one of intellectual weakness;

an impossibility of ruling and moderating the rush of ideas coursing through the brain. These mental manifestations seem less the result of true delusion, than of delirium or a state of general excitement. The ideas follow each other in too quick succession; you will not be struck by their eloquence or depth of thought, the expressions are more like a confused medley, and seem uncontrolled and uncontrollable.

It is true, as Dr. Dickson says, that "the lesion of attention is not necessarily attended with a loss. The maniac in his raving often seems to pay no attention, and yet is observant of everything, and will, after the excitement has passed away, repeat all that has been said in his presence. The popular notion that a maniac is incapable of understanding what is said to him, or that he is incapable of giving a rational answer, is not in accordance with fact; neither is it a fact, as is popularly supposed, that he is a dangerous being, who can only be restrained by bars and bonds and locks."

Delusions are frequently, but not always met with; hallucinations and illusions are more frequent than in any other form of insanity, and those affecting the senses of sight and hearing are the most common. "In acute mania, patients see the Deity, angels and devils; hear music and voices, and have a hundred hallucinations of the same sort, far more frequently than in other forms of insanity."

Headache is not often complained of in the acute stage, and there is seldom, as a rule, any appearance of paralysis, strabismus or convulsion. The pupils usually are equal, but may be contracted, or less frequently, dilated; there is photophobia and intolerance of noise in some cases.

Sleeplessness is a prominent symptom in acute mania; this may be very persistent, the patient seeming to go without sleep for weeks at a time; and in some cases you will meet with increased excitement and boisterousness at night. In some cases instead of complete wakefulness we may have troubled sleep, together with unpleasant and wearisome dreams. Too much ought not to be expected from a calm sleep during the course of the disease, as the most violent exacerbations occasionally ensue after the quietest nights, and,

on the other hand, even convalescents frequently continue for a long time to complain of sleeplessness. This sleeplessness is one of the most difficult symptoms for the feigner to successfully imitate, as the violence of his physical efforts must soon produce exhaustion, and the would-be-insane man rests and sleeps.

Maudsley says: "Considering the great and continued agitation, mental and bodily, and the loss of sleep in acute insanity, the bodily functions are very little affected. In the early stage, when there is, perhaps, some febrile disturbance, the pulse may be a little quicker, but it is afterwards scarcely accelerated. The temperature of the body is slightly, if at all, increased in ordinary cases; but in cases of a typhoid type, when there is sleeplessness, restlessness, gradual wasting, and when the tendency is to death from gradual exhaustion, it may be raised from three to five degrees above the natural standard. When the temperature rises notably in a case of insanity, we may then justly suspect an attack of some other disease, or a tendency to fatal exhaustion; in either case the prognosis is serious."

In some cases the facial expression gives us a clue to the form of derangement, as well as the class of mental thought. In many instances the physiognomical expressions seem similar to those in the sane only intensified, again, there may be an incongruity between the expression of the different parts of the face, or there may be a ceaseless and apparently motiveless play of feature. In melancholia the face indexes the depressed emotions of the mind pretty accurately; while in mania the extravagance of ideas, the mixture of grief, gratitude and resentment alternate and change so quickly that there is no one fixed characteristic expression. "In dementia all expression has disappeared, the vacant stare and the meaningless lineaments indicating the loss of thought and desire, while in the face of the general paralytic,—the trembling lips, the drooping brows, the features expressive of a mixed state of imbecility and excitement, the eyes with pupils of unequal size, together afford to the experienced alienist, unquestionable testimony of the existence of the most hopeless of maladies."

The acute form of mania generally terminates in from three to six months; but many cases run on from one to two or three years and then recover. When the disease has passed its third month and the melancholic symptoms have set in, the access of a maniacal paroxysm is considered favorable rather than otherwise.

When the case progresses favorably, the symptoms disappear gradually, there is a return to a more natural expression of the face, and an inclination to more orderly habits in dress and conduct. Often at the same time the patient gains in flesh, and he begins to acknowledge his past insane condition. It is generally considered unfavorable if the patient's bodily health and strength improve without a corresponding gain in mental health. In all cases gradual improvement will afford stronger ground for hoping that the recovery will be permanent, than if the change occurs rapidly or in a few days, especially if the attack has first lasted some little time.

The profound change in all faculties of the mind in mania can commence by an acute paroxysm, which is the least dangerous form, and the most easily cured; or it may take a chronic course from the beginning.

Esquirol, whose masterly descriptions are still taken as models, gives the following description of the mental phenomena in acute mania: "What a change," says he, "has taken place in that man, who only this morning submitted to his calculations the laws regulating the universe; who, by his wise combinations, opened to his country new sources of prosperity; who, by his genius, enriched the arts with so many masterpieces; who, in the generosity of his heart, breathed only good will to all his fellow men. Suddenly, regardless of all that surrounds him, ignoring himself even, this same man lives but in mental chaos. His distempered and threatening words betray the trouble of his mind, his actions are mischievous, he wishes to overthrow all, to destroy all; he is at war with all the world, and now hates what he had lately loved. To so deplorable a condition, if he does not recover, there succeeds a calm a thousand times more grievous. The maniac falls into a condition of apathetic thoughtlessness; there is no more

strife of mind, no more threatenings, all memory is lost, all has become confused and gone in dementia, the true tomb of the human mind; the unfortunate man becomes an object of pity and disgust to his fellows, who in his deplorable condition no longer recognize him as a man, since its distinguishing feature '*reason*' is lost; he drags out a stupid existence the rest of his natural life, without desires, or regrets until released by death."

His intellectual faculties have been struck powerless; his mind has not even power to create and follow out a delirious idea; he cannot bind together his thoughts sufficiently to reason and hardly even to imagine. Sometimes acute mania manifests itself by the following changes in the mental faculties. The cerebral excitement is shown on the instinctive side by an ambitious, generous delirium, by impatience, by anger and petulance about trifles, and even without cause. On the reflective side it is shown by an unaccustomed activity of thought, producing brief, incomplete, disconnected ideas; wild and whirling words; various projects begun and abandoned; by a confusion of incoherent ideas having no possible relation one to the other; and finally, by a craving for movement and a nervous restlessness, putting into motion the whole muscular system, preventing the patient from remaining still; this state of things would indicate an excitement in the automatic nervous centres equal to that existing in the brain.

Similar disturbances in the two orders of mental faculties are also to be observed in the chronic mania. I will again quote the words of Esquirol, who says: "Chronic mania is a chronic cerebral affection, usually without fever, characterized by disturbance and exaltation of the sensibility, of the intellect and of the will. Maniacs are remarkable by reason of their hallucinations and illusions; by the strange and vicious juxtaposition of their ideas which occur without any logical sequence, but with extreme rapidity. They are remarkable for their errors of judgment, the change in their affections, and the impetuous violence of their temper. This class of persons have a very great nervous excitement, their delirium is general, all the intellectual faculties are overturned or exalted,

anything which attracts their attention, either moral or physical, excites them and becomes a centre for their delirious ideas. In melancholia and monomania, the symptoms are the expression of the perversion or disturbance of the emotions or affective faculties, while in mania they are symptomatic and significant of the overthrow of the intellectual powers."

In a course of lectures delivered before King's College, London, Dr. Sheppard, one of the Medical Superintendents of the great asylum at Colney Hatch, relates a case from his private practice which is so typical and interesting that I transcribe it entire. He says: "I was sent for one morning to see a young lady, who was described to me as excessively violent and unmanageable, and I was requested to visit her immediately. She was a handsome, well-made brunette, nineteen years of age, and had always enjoyed good health until attacked by scarlet fever, from which she had recently recovered. She was happy in her domestic relations, and was engaged to be married to a gentleman who was in the house at the time of my visit. There was no insanity in the family. Two days previously this damsel had suddenly and without any obvious cause displayed a petulance and irritability towards her father and mother, and absolute rudeness and indifference to her betrothed. She was heard to talk in the bed-room that night, long after the family had gone to rest, and in the morning it was pretty obvious from her appearance that she had had no sleep. Her countenance was flushed, she was in a state of considerable excitement, and she refused to leave her room. Medical assistance was sent for, and two local practitioners were charged with the responsibility of her treatment. But she would not be treated, she refused to take their medicine or their advice, and she spat in their faces when they went near her. As night approached she became more excited, and she would allow no one to approach her. They had a terrible night with her, she tore up and down the room in her night dress, smashed everything she could lay her hands on, spat at everybody, made use of the most disgusting language, exposed her person, and threw out her arms as though to clutch imaginary objects. She took a singular dislike to one of the medical

gentlemen, and he really became quite frightened at her and left the house. It was on the morning of the next day that I saw her. I shall never forget the look of utter dismay and bewilderment upon the countenances of everybody as I entered the house. They were baffled in all their attempts to meet the emergencies of the case, and even the medical man was on his beam-ends. As I ascended the staircase I heard vehement declarations and shouts, associated with as obscene language as the nastiest mind could desire. The bed-room was strewn with different articles; one of the windows had several panes broken; a glass which was fastened to the wall over the mantle-piece was also broken; the whole place was a Babel of confusion. Wild and flushed, the central figure, this young, mad, and imperious lady, with dishevelled hair, torn night-dress, and exposed bosom, sat up in the middle of the bed. "Who are you?" she screamed, drawing herself up with a threatening aspect, "Leave my room instantly, how dare you come into my bed-room?" I approached her and endeavored to take her hand; but, spitting at me, she sprang out of bed on the opposite side to that on which I stood, and threatened to burn down the house if I did not leave. Fierce as a lioness at bay, she stood there, with dilated nostrils and heaving breast, the incarnation of ungovernable passion. The friends around were anxiously watching me to know what I was about to do and how I was going to free them from their terrible bondage. "That will do," I said, "let us go down stairs again," and the patient, without speaking another word, kept her piercing eyes upon me until I had retreated. When we reached the dining-room, all looked very much astonished, and were evidently thinking I was as much baffled as themselves. But I had seen all I wanted to see upstairs; a glance, and the history narrated to me on my way to the house, had told me what the case was, and what was needed. My continued presence in the bed-room could only be a source of increased irritation to the patient, and the sooner I left her therefore, the better, in order to organize my plans and arrangements. First I selected another bed-room, and completely dismantled it of all furniture,

except the bedstead itself, which had no canopy or hangings. A bath-room was close by, and I turned on the cold water, and threw a sheet into it, and sent for all the blankets that could be found. I laid a mackintosh upon the mattress, and over that, after wringing it out, I spread the sheet which had been immersed in the bath. My proposal was to pack the young lady. Returning to her bed-room, with my medical colleague, one of her brothers, a nurse, and three female servants, we seized and carried her forcibly, and with great difficulty on to the bed where the wet sheet was spread out for us. After much labor, we managed to straighten her limbs, and get the sheet thoroughly round her, followed by about ten or twelve blankets; we then placed a pillow under her head and a wet towel on her forehead. For half an hour I never worked harder in my life. But there she lay at last powerless and baffled. It was a great triumph and she knew it, and the sense of defeat helped to tame her and tone her down to comparative calm. Now in a case of this kind the wet sheet serves a double purpose. It is a powerful depressor and sudorific, and it is at the same time a very legitimate means of restraint. It lowers the abnormal elevation of temperature, it converts a dry and harsh skin into a moist one, and it places your patient in a position to submit to further processes. It relieves everyone; it gives you breathing time, and enables you to look about and to plan. It should be mentioned that the room had one window with shutters, which we nearly closed, for darkness is a material aid in quieting maniacal fury. In about five minutes after our patient had been packed she asked for water, and it was given to her iced; she gulped it down eagerly, but refused to take anything with it, and in ten minutes afterward she was sleeping calmly. As a rule it is not desirable to keep a person in a wet sheet more than an hour or an hour and a half, but in this case I felt justified in doing so. At the end of two hours I awoke and unpacked our patient. She steamed again as we unwrapped the ponderous coverings, and I then instructed the females about her to carry her in the adjoining bath-room, and there place her in an open bath which I had prepared at a tem-

perature of 75°. She was quite passive under it, and after being rubbed dry with rough towels, she was carried back to the room last used, where, in a clean night-dress and clean sheets, she lay down quietly in charge of the nurse and one female servant. It was now about three P.M. She refused nourishment and immediately fell asleep again, not waking until eight o'clock. She then took a glass of pale ale, some milk and beef-tea with two eggs beaten into it, and seemed as calm as she had ever been in her life, and remained so. She had no bad symptoms afterward. In three months she was married. She has borne children, and the puerperal state has been free from all complications."

"Miss M., æt. 16, after suffering several weeks with melancholia, suddenly developed acute mania. After some allopathic treatment she had paroxysms of frenzy. Eyes red, protruding and ghastly; hair dishevelled and wild demeanor; talking and singing alternately; hands, feet and head alternately hot and cold; tongue much coated; bowels constipated, and appetite capricious. Gelsem. in drop doses every hour, cured in less than three weeks." (Dr. C. P. Hart. *A. H. Observer.* September 1873.)

Dr. Bullard gives the following well reported case: "Woman æt. 24; unmarried. Three years ago, after apparent perfect health, was taken suddenly with violent pains through her breast like knife thrusts; followed after a few days by a raging fever, during which she commenced imagining all sorts of queer things. In two weeks the fever left her, but not the imaginings. Great fear was now prominent; afraid to eat, to sleep, and of everything; became greatly emaciated, was reduced from one hundred and forty pounds to ninety. Her bodily health began to improve, but she now became very violent, breaking everything she could lay her hands upon. She would bite and pinch, would swear and use the most indecent language; would laugh in a peculiar maniacal manner, the laugh ending in a half howl. Her eyes had a never ceasing rolling motion, and her face that look of stealthy cunning of the insane. Would sometimes stop in the middle of some mad freak, and would say with a scream, "I know I am doing

wrong, I can't help it, etc.," and perhaps in a few minutes would be more violent than ever. Had menstruated at twelve, and had been regular up to the time of her sickness; had always been modest and retiring in disposition and a great student. There was no inherited taint of insanity. When I first saw her she was very reticent, and upon my approach retired; had not menstruated for eleven months; bowels were constipated and she was passing but little water; very restless at night, seemed to be always awake; appetite varied; no thirst; had been less violent of late and very moody. Complained of no pain but was weaker than usual. ℞. Nux vom. in water. One week afterward she wanted to sleep all the time, and in fact it was difficult to arouse her from her stupor. For this and because her body was covered with a cold clammy sweat, and she was troubled with an offensive diarrhœa, I gave her *Secale*. Two days afterwards she had a profuse discharge from the womb of thick black putrid substance, looking like disintegrated liver, and very offensive. The bloated abdomen had assumed its natural size, and she awoke from her stupor appearing better than for a year. She continued to improve rapidly, and the symptoms changing somewhat, received Hyoscyamus and became entirely cured."

The following case of subacute mania, with delusion without violence, is from the records of the Homœopathic Hospital at Middletown, N. Y.

"Case.—T. E., male; married; æt. 33; blacksmith by occupation: admitted August 26th, 1878. This was his first attack, beginning nine months ago; he had worked day and night over a patent, and began to have delusions that people were after him, and he had threatened to shoot them in self-defence.

"August 27th.—Pulse 84, and very weak. Patient very anæmic and white. Speaks in a hoarse whisper. Has infiltrated apices of both lungs, and slight mitral insufficiency. Also chronic inflammation and ulceration of larynx and vocal cords. Says that he had very bad whooping-cough in the summer. ℞. Lycopodium.

"August 28th.—While talking about his family cried some, and lamented his inability to support them. Mentally has no

bad symptoms. Was ordered milk diet, and to be out doors as much as possible.

"During the month of September he was troubled with dyspnœa, night-sweats and neuralgia, but gradually improved so that by October 24th he was out daily on parole.

"November 26th, his delusions had entirely disappeared, and he seemed stronger both bodily and mentally and was discharged cured."

The following case of subacute mania will serve to show the relations existing between uterine disease and mental derangement.

"Mrs. R., æt. 45, married at sixteen; five children; having been in ill health for some time came under my care in the hospital for subacute mania. She was under the delusion that she was bewitched, and had killed some witches. Said her womb was turned upside down and inside out. Was menorrhagic, pale, feeble and anæmic. She believed herself constantly pregnant with twins, and insisted that they were spirited away from time to time. It was necessary to restrain her to prevent self-abuse, to which habit she was addicted. Had incontinence of urine. During the period of her residence here, her delusions were at all times the same, and were referred to the generative organs. Previous to admission she had been treated for prolapsus uteri, but there was no suspicion of any cancerous disease. The disease slowly progressed, and after a residence of eighteen months she died. Upon post-mortem examination, beside other grave lesions, the os and cervix uteri were found nearly destroyed by scirrhus, and a portion of the body was in a softened state."

Not unfrequently you will meet with cases where all the delusions will be referred to the stomach and digestive organs, and the patient will declare that the sufferings he experiences are penalties inflicted by God for the violation of some spiritual law, while a post-mortem examination will show inflammation, scirrhus or some other disease.

Leaving at one side mania transitoria, in some exceptional cases recovery from mania may be rapid, as shown in the following case reported by Dr. W. H. De Witt of the asylum at Longview, Ohio.

"Mrs. K., admitted May 5th, 1875; native of Germany; aged 38 years; married; occupation housekeeping; second attack; duration two months; length of previous attack unknown.

"Patient has not been addicted to the use of alcoholic stimulants; she has not received any injury to her head, and has not been subject to epilepsy. The disease is supposed by friends to be hereditary.

"Medical certificate states that the patient had both delusions and hallucinations, described as follows, thinks that some one is about to kill her, or that she must kill some one to atone for sins she has committed. Hears imaginary voices talking about her.

"On admission she presented the following symptoms: Was much emaciated, anæmic and extremely feeble, had an extremely haggard look; temperature about normal; circulation feeble; pulse small and frequent; tongue dry and covered with dark coating; breath very offensive. Her conversation was variable, at times for a few moments she would converse with a certain degree of rationality. This apparent rationality was, however, soon succeeded by disconnected incoherences and delusionary utterances; she imagined that she was to be tortured or killed by those around her, and seemed impressed with the belief that she must kill others to atone for sins; she was exceedingly restless, never violent and noisy. Patient slept but little the night following her admission; took but little nourishment, believed the food to be poisoned, continued incoherent and delusionary, and exhibited some suicidal tendencies. On the third day after she began to show marked evidences of returning reason, and conversed with a good deal of earnestness and rationality; her improvement from this time forward was remarkably rapid. Ten days from the date of admission she exhibited no indications whatever of mutual derangement. Her general health had also improved; she was discharged on the 27th of the month as cured; I have every reason to believe she is doing well."

The three following cases of mania are reported from the case-book of the Homœopathic Asylum at Middletown. The literature of the homœopathic treatment of the insane is so

limited, that I feel that no apology is needed for laying before you anything and everything which may aid us in selecting the true remedy in a case of insanity.

Case 1.—Female; nineteen years of age; single; Methodist; academic education; admitted April 19th, 1875, in a very excited condition, having slept only four and one-half hours in four nights.

20th.—Much excited; head hot; pupils dilated; talks incoherently on all sorts of topics; last night would not eat; was sleeved, fed, and received Bellad.[30]; slept nine hours; this morning looks much better; has passed water; still has to be fed; Bellad.[30]; 21st.—Slept between eight and nine hours; drank two glasses of egg-nog voluntarily; pulse strong and full; face flushed; pupils dilated; urinated this morning; no stool since admission; out of restraint, but in bed; talks more rationally; looks refreshed.

22d.—Slept about six hours; wet the bed; pulse one hundred and twenty, and not so full or strong; head hot; pain in forehead; temporal arteries throb; pupils dilated; no stool; less restless and noisy; talks quietly and pleasantly; sleeved. 23d.—Slept well; looks better and stronger; pulse full; pupils less dilated; tongue dry and red; has not urinated since yesterday; urine then red, thick and scanty; still constipated; less excited; talking quietly and incoherently all the time; still has to be restrained. 24th.—Slept well; less arterial excitement; had quite a quantity of water removed yesterday, and has not passed any since; no stool; obstinate,—objected to eating, and was fed by force; Nux vom.[30]. 26th.—Slept five hours; quiet; up and dressed; out of restraint; no stool; no water since yesterday; pulse good, much stronger; some pain in forehead; Nux vom.[1].

27th.—Slept well; urinated twice yesterday; bowels moved after an injection; has not urinated to-day; quiet and pleasant; went to table for breakfast; Nux vom.[30]. 28th.—Slept well; natural stool; urinated twice yesterday; stronger; pulse good; goes to the table. May 3d.—Slept fairly; at chapel yesterday; to-day writing a letter home, an unintelligible scrawl. 5th.—Slept well; excited yesterday by another pa-

tient; wrote a letter, which was a great improvement on her former in chirography, but not more coherent. 13th.—Slept five hours; full of mischief; talking about law-suits; talks much to herself. 15th.—Headache all yesterday and to-day; tongue fiery-red; thirsty; eats well; urine scanty, and passed with difficulty; Nux vom.[1]. 16th.—Slept poorly; at the dance last night; less headache to-day; Nux vom.[1]. 18th.—Menstruating; slept well; complains of pain in shoulder; quiet; pleasant; not excited; Sulphur[1]. 28th.—Quite wild; pupils dilated; no headache; tied in a chair; Bellad.[30]. 29th. Looks much better; quieter; slept well; Bellad.[30].

June 9th.—Wrote a letter to her aunt, two-thirds of which was perfectly sane. 14th.—Doing well; removed to first hall. 19th.—Menstruating regularly; some headache; head hot; pulse full and quick; pupils dilated; Bellad.[1]. 25th.—Feels tired and weak; eyes slightly congested; some pain in shoulder; rather dejected; Phosph. ac.[1].

July 3d.—Wrote two letters, one somewhat mixed, the other sensible; not much life or energy; Phosph. ac.[1]. 20th.—Complains of pain in head at times, and a feeling of sleepiness all the time; seems stronger; Phosph. ac.[1]. 26th.—Head aches and is hot; slept poorly; Bellad.[30]. 27th.—In bed; near the time of menses; much uterine pain and backache; pulse full. August 2d.—Less pain; menses have stopped; pulse full and bounding; Acon.[3]. 3d.—Occasional twinges of pain, not as rational as yesterday; Acon.[θ]. 4th.—Still womb-pain when she moves; pupils dilated; head hot, with little pain; appetite poor; Bellad.[1]. 9th.—Much better, but physically weak; Phosph. ac.[2]. 16th.—Pleasant; appetite poor; homesick, but mentally well. 30th.—Discharged cured; having been four months under treatment.

Case 2.—Female, æt. 25, native of Ireland; house-maid; Catholic; common school education; admitted August 28th, 1875. Patient is naturally amiable and cheerful; about a year ago became homesick and nervous, and returned to Ireland; remained only a short time, and is said to have there shown some signs of insanity. About two weeks before her admission was thrown from a wagon, and hurt her head. A

few days after became depressed about the pecuniary and general welfare of her brother, whom she had, a short time before, induced to come to America. From this time her symptoms continued to increase in severity until she was brought to the asylum.

Aug. 29th.—Brought in last evening, in a quiet state, about 6 o'clock; at night insisted that she was dying and wanted a candle; went to sleep early, and slept until 11 P.M., then awoke in a frenzy of fright and rage; was sleeved but tore them off and continued noisy until near morning; then slept about ten hours; ate a good breakfast; pulse 100, and strong; tongue dry; pupils contracted; says she has been very thirsty; Acon.[1]. In afternoon fell asleep, but awoke at 3, and at 9 o'clock in same sort of rage as last night; Bellad.[1], to be given at time of paroxysms. 30th.—Slept well; pulse 104; appetite good; looks better. 31st.—Slept well last night, and two hours to-day; pulse 100, and good; quieter; not excited; last night head less hot; tongue dry; very thirsty in morning; says her head does not ache; Acon.[1].

Sept. 2d.—Excited yesterday; jacketed; slept well; inclined to be irritable; pulse less rapid; eats poorly; talks much about her brothers and her family. 3d.—Slept well; excited at times; stamps around; seems to have some religious delusions; pulse 120; talks to herself. 4th.—Slept well, but ugly this morning; attacked every one she met; tried to bite; sleeved; Bellad.[1]. 5th.—Commenced to flow very profusely last night; flow, bright red; Nux vom. θ. 6th.—Slept well; flowing less; Nux vom. θ. 9th.—Menses have ceased; pain in back part of head; slept poorly; Cimicif.[30]. 11th.—Less excited; pulse weak; sleeps and feels better; China θ. 15th.—Mind much better; says she is only weak, and sometimes gets afraid. 20th.—Seems nearly well; stronger; pulse nearly normal; talks rationally, no excited paroxysm for some time; still has a burning sensation of the head; China θ. 22d.—Had a visit from her brother yesterday, and is no worse for it; pulse better. 24th.—Daily gaining in strength; head sore in occipital region; Arnica[1]. 25th.—Quiet; complains still of soreness of occiput; sent to first ward; Arnica[1]. Oct. 10th—Discharged cured; under treatment six weeks.

Case 3.—Female; American; married; æt. 18; admitted January 23d, 1875.

Said to have been taken insane a few days before her admission, ten days after marriage. 25th.—Slept very well in crib two nights past; inclined to be lively, talks to herself a great deal; commenced menstruating yesterday, flowing profusely; pulse quick, rapid, not very full; feels weak; Sulphur[1]. 26th.—Would not eat, was fed; flowing less. 27th.—Slept poorly; walked the floor most of the night; looks better this morning; anxious to get away; hoarse from cold caught before she came; Bellad.[30]. 28th.—Looks and acts better; quieter, at work on tatting; menses over; says she has had headache a long time. 30th.—Eats and sleeps; noisy; singing; Bellad.[30].

February 3d.—Quiet; says noise hurts her head; says trouble made her crazy. 5th.—Did not sleep first at night, but did afterwards; headache when she stoops. 6th.—Did not sleep well after being down to dance; Bellad.[30]. 8th.—Wild last night; cribbed; wanted to hide and be in the dark; got down on the floor and covered herself with a chair; afraid some one will get her; slept only about two hours, singing and shouting all night; Bellad.[7]. 9th.—Slept none; shouted and cried; covered up her head and called for Charlie all night; Arsen.[6]. had no effect; would not eat, and was fed; pale; tongue coated; breath bad. 10th.—Slept well; tore up skirts; sleeved; wants to go out sleigh-riding; wild and incoherent talk; head hot; inclined to cry; Bellad.[30]. 12th.—Slept well; sleeved, as she would take off her clothes; breath bad; menstruating; had menses only three weeks ago; Hyosc.[1]. 13th.—Only slept an hour; tears her clothes; sleeved; pale; weak; talks constantly about Charlie; put abed; restless; crying; sick at stomach and thirsty; Arsen.[1]. 14th.—Did not urinate from yesterday morning until night; then passed a large quantity; slept about five hours; this morning stronger; pulse 100 and stronger; Arsen.[1]. Slept well, noisy, cries, laughs and strips off clothes; passage from bowels; pulse quick, not very strong; Hyosc.[1]. 16th.—Slept well; very thirsty; pale, but quieter; at times noisy and talks incoherently; Arsen.[30]. 17th.—Better in every respect. 20th.—Still better; complains of

pain in her side, worse when moving; tongue slightly coated; very thirsty; drinks a great deal; Bryon.[1]. 22d.—Slept well; this morning wild; pulse quick, 100; seems weak; breath very offensive; discharge from bowels very offensive; singing and shouting; Arsen.[30]. 23d.—Slept poorly; pulse weak, 116; pale, but less so than a few days ago; restless; thirsty and craves sours; Arsen.[1]. 24th.—Does not sleep more than three hours at night; took off all her clothes two or three times yesterday; pulse quick, but fuller; Hyosc.[1]. 27th.—Decidedly better, quieter and pleasanter.

March 4th.—Slept yesterday afternoon, and poorly last night; fretful; walks the hall and cries. 5th.—Went to ride last evening; slept well; has laughing and crying spells, the latter especially when doctors are in the ward; menstruating. 6th.—Slept well; kept taking off her clothes; menstruating freely; Hyosc.[30]. 8th.—Slept; ceased menstruating; makes less trouble about her clothes; quiet; less restless; Hyosc.[1]. 11th.—Has constant desire to wet her head; quieter; pulse not strong; Arsen.[1]. 22d.—Sleeps quieter; pale; pulse weak and quick; says she does not feel well; Arsen.[30]. 26th.—Improving.

April 10th.—Menses commenced; headache; quiet and pleasant. 12th.—Menses scanty; not excited. 13th.—Menses regulated; not as cheerful as usual; crying spells this morning. 14th.—Better. 20th.—Pain in knee, better when still; noise hurts her head; Bryon.[1]. 21st.—Sent to first ward; eats and sleeps well. 24th.—About same; dizzy at times; Bryon.[30]. 26th.—Very feverish yesterday; slept well; head hot and aches; breath offensive; in bed; Bellad.[1]. 28th.—Better. 30th.—Rather weak; anxious to go home; head aches a little; Calc. carb.[3].

May 1st.—Feels better; no headache; stronger. 7th.—Complains of being hot and then cold; head aches badly; worse in morning; Calc. carb.[3]. 26th.—Improving; complains of heat at times, and then pulse is considerably accelerated; Sulphur[1].

June 3d.—Looks pale and weak; headache coming on in morning about ten o'clock; feels as if she would fall over;

Calc. carb.[3]. 16th.—Improved; paroled. 19th.—In bed; menstruating; head hot and aches; pulse quick; skin hot; pupils dilated; Bellad.[1]. 21st.—Breath very offensive; in the morning mouth tastes badly; tongue coated yellow at the base; sleeps poorly; constipated; appetite poor; Nux vom.θ.

July 1st.—Improving; wants to go home. 6th.—Seems well. 17th.—Discharged cured. Under treatment four months and twenty-five days.

Two cases of mania are reported in the *Medical Counselor:*

Case I.—A single woman at the climacteric began to imagine she had committed some great crime, and that the authorities were in pursuit of her; and that her neighbors are persecuting her; and that the devil is after her, and that he comes up into her room through the floor. Sleep is poor and unrefreshing—filled with tiresome dreams; she is dizzy, her gait is unsteady and she is constipated. *Zinc. oxyd.* was prescribed, one-sixth of a grain every four hours. At the expiration of one week these troublesome symptoms had disappeared.

Case II.—A man, thirty-six years of age, had been insane for several months. "He thinks that he is lying in the grave, pleads, prays, demands that he be killed. Laughs as if some one was tickling him. Wants everybody to kiss him; accuses his wife of faithlessness. He scolds, strikes about him in a rage, cannot be held by his watchers. He thinks his watchers are dogs, and barks to make himself understood by them. He thinks the house is surrounded by wagons full of geese and people, who make obscene gestures at him, which make him rave." He was cured in a few days by Stramon.[9].

"*Chronic mania,*" says Bucknill, in one of those vivid descriptions that give a peculiar charm and value to his writings, "represents the rudderless and shattered state of the vessel after the tornado of raving madness has passed by. The wreck is left in every variety of condition, sometimes with sail enough to keep her head to wind; sometimes she lies upon the water, a log in the helpless state of consecutive dementia. In some of the milder forms of chronic mania, however, the wreck of humanity may have passed through the tornado and come out

of it hopelessly damaged, and yet not so utterly scathed and broken as are many other goodly vessels that have encountered the same tropical hurricane of passion; they have lost helm and compass, and must drift henceforth in circular voyages without port or purpose, but they are not entirely lost to reason, nor are they threatened with speedy engulfment."

In them the acute attack of insanity with which their mental troubles commenced has ended in disorder rather than enfeeblement of intellect. Their perceptive faculties may be as lively as ever. They may notice all that takes place around them. They apprehend whatever is said to them, and reply with more than ordinary celerity. Their memories have a strong grasp on the past, except that portion of it which was covered by the primary stage of their mental malady, and they are quick to recognize, classify and name the persons and objects that are brought before them. Their acquirements have not gone from them. They can read, write and cipher nearly as well as they ever did, but they are incapable of continuing any exercise of the kind for many moments consecutively.

No distinct nor superficial signs of mental decay are to be detected in them, and yet they are as much incapacitated as if they were demented. They have lost control over their mental processes and cannot pursue any train of thought. Their minds are in some respects more active than they were in health, and a copious flow of ideas passes through them; but the activity is morbid, and the ideas are incongruous and apparently disconnected. Then the gift of reticence is wanting. They cannot think silently, or with only faint external indications of the current of thought within; but they must babble out all their delirious conceptions, or at least as much of them as articulation at its quickest is capable of keeping pace with. Their conversation is more incoherent than their ideas, probably because thought distances expression, and because utterances can only be given to snatches here and there of the fancies that course through the brain.

The excitement of certain areas of the brain causes a large development of nervous energy, which expands itself in producing an equivalent amount of new thoughts and emotions

in unusual arrangements, and which overflows also in motor currents discharged through various classes of muscles, and notably through the vocal apparatus. Thus chronic maniacs are in a state of perpetual mental and bodily restlessness. They talk to themselves, they chatter throughout the night, they dance, clap their hands, gesticulate, indulge in shouts of laughter, or tear their clothing to pieces. The length of time during which they can continue to discharge nervous energy uninterruptedly in this excessive and almost convulsive manner is truly wonderful.

These chronic maniacs in many cases are permitted to remain at home, and come and go at pleasure. They are generally considered harmless, and it is from their number that come the authors of so many of the crimes of which we read almost daily, and whose details resemble each other so much. A sudden murder committed under the most revolting or heart-rending circumstances, and the account almost always ends, "the author of the crime, though insane, was considered harmless and inoffensive."

Not less remarkable than the length of time during which unintermitting excitement can be kept up in chronic mania, is the smallness of the effect which the long sustained and severe exertion, and the protracted sleeplessness exert upon the bodily health. Exhaustion is rare in chronic mania, neither the body nor the brain seem to suffer much from the strain imposed upon it. When life is cut short during the course of chronic excitement by any intercurrent disease, the brain is seen to be of almost normal appearance. Whatever changes in it may be revealed by microscopic investigation, none are perceptible to the unaided eye. The membranes are not thickened; the arachnoid is not opaque, nor is the pia mater adherent to the gray matter beneath. The convolutions are not wasted, nor is their gray matter thin and pale on the one hand, nor swollen and red on the other.

In those grave cases of chronic mania that merge into consecutive dementia, impairment of physical health of course often occurs. As the ideas become more and more fragmentary, and as the whole powers of mind are wrecked, bodily

decrepitude sets in. But in other cases in which the mania is not of the severest type, and in which fatuity only gradually sets in, little or no physical weakening will be noticed.

Whether it be that chronic maniacs are tickled by the incongruity and unaccountableness of their own ideas, or that they have a sense of exuberant joyfulness, or that they are merely manifesting the excitement of some cerebral centres of movement, it might be difficult to determine; but certain it is that they laugh inordinately, and that there are generally smiles of some kind on their faces. The corners of the mouth are drawn somewhat backwards and upwards, the upper lip is shortened, while the bright and sparkling eyes are moved rapidly about, or look furtively out from beneath the eyebrows. Of all expressions this is the most characteristic of chronic mania, especially when it is associated with negligence in dress or peculiar attitudes.

Of course there is no one expression that is constant in this ever changing malady. Grief, rage, scorn and terror may be signalized by the features in rapid alternation, but the expression described is undoubtedly that which is the most frequent and characteristic. To that expression there is not infrequently added an element of surprise or astonishment.

As has been said, chronic maniacs are almost always restless, and indulge in numerous unmeaning and curious movements. Some of them attitudinize, others deal destruction to the clothing and furniture around them; others again are perpetually running from place to place. Some of them collect useless articles, such as pebbles and leaves; and others again bedizen themselves with any cast-off finery that they can lay hands upon.

Of late the value of the ophthalmoscope in investigating cases of brain disease is beginning to be known; but the results attained can only be briefly referred to here.

The investigations of Clifford Albutt, in England, and of Dr. Noyes, in this country, would show:

1. That symptomatic changes in the eye are to be found in a large proportion of the cases of mania.

2. That if cases known to be functional only, or incorrectly

named (such as erotomania, transient mania, hysteria, etc.), be omitted, the proportion of cases presenting permanent change in or near the optic disks is still larger.

3. That both in mania depending on organic causes, and in functional mania, the back of the eye, if observed within a few days after a paroxysm, presents a vascular suffusion, or pinkness; a pinkness so great after severe paroxysms as to obscure the disk. No exudation is seen in these cases, unless there exist some permanent mischief.

4. That during the paroxysm, on the contrary, the disk is anæmic, perhaps from spasms of the vessels.

5. That the permanent changes in the disk are due either to stasis from obstruction to the intracranial circulation, with consecutive atrophy, or to softening, ending in simple white atrophy, or they may present changes of a mixed character.

The following case of chronic mania was reported by Dr. R. A. Phalan, Prof. of Materia Medica in the Homœopathic College of Missouri, and is taken from the *Homœopathic Courier* of January 1881.

"Miss P., 19 years of age, was sunstruck in the summer of 1864, from which time till the 17th day of July, 1868, she had been insane. After repeated efforts of medical men had failed to restore her to health, she was sent to the State Lunatic Asylum in the Spring of 1865, and kept under treatment and discipline thereof, during a full term, at the expiration of which she was returned to her father's home without any amendment whatever in her condition.

"At the close of another year, seeing that she was getting worse and becoming unmanageable, she was sent back to the asylum, and kept there during the course of a second term, and again returned to her father's house as incurable.

"What the symptoms that characterized her case during all this time were we did not learn, except in a general way, not essential to be mentioned here; but she continued in her peculiar state until the 17th day of July, when she came under my treatment.

"The condition expressive of her derangement, and for which we prescribed, was the following, viz: Unsteadiness of

purpose, with almost constant tendency to move some part of the body; indisposition to converse, especially with, but making determined answers to strangers; and an occasional exhibition of *silly* laughing during her agreeable intervals. When her wishes to go into the streets met with the opposition of her parents, she flew into a rage, and used all the force at her command to carry out her determination. She would cut with a knife if it came in her way, and when she got out she walked hastily on her way, singing and dancing, and laughing and waving her hands. These circumstances were observed to be much aggravated in the afternoon and evenings, and especially at the approach of, and during the first day of, the menstrual period; particularly the eyes when in anger, the pupils of which seemed to be more than ordinarily dilated most of the time, the menses being premature, dark, clotted and scanty.

"These indications taken in conjunction with the very characteristic original cause, whereby they were generated, and as consequence of which they continued to exist, marked definitely the course to be pursued. What was there left us to do in so important a case? Nothing, but as a true Hahnemannian to carefully individualize in selecting the proper remedy, and having found it, to administer it in the smallest quantity capable of curing the case. Now which of the two remedies Bellad. and Hyosc. covers the case the most perfectly? Both have laughing, singing, furious actions, rage, attempts to strike, and aggravation of symptoms in the afternoon and evening, and before and during menstruation, in common; we must individualize further.

"With Bellad., however, and not with Hyosc., do we find the dislike to conversation, the constant disposition to move some *part* of the body, especially the hands; the condition of the eyes; the majority of the symptoms connected with the menstrual appearance, and to the cause of the disease; it stands in the very highest order as a remedial agent. Bellad. was therefore the remedy, and accordingly, we, on the 17th of July, 1868, gave the patient one dose thereof, in the 4000th potency, (Lentz's preparation), with the usual allowance of Sac. lac. for one week, and departed.

"On the afternoon of July the 19th, the lady's father informed me that she had been unusually excited the previous evening and during that day, and thought the medicine might be too strong. This was an aggravation. July 24th.—Found the patient unusually quiet, had been so for three or four days, was more communicative, and general appearance favorable. Sac. lac. furnished for one week. July 27th.—Her father called to see me, and informed me that she was 'getting along finely,' was making herself generally useful about the house without being asked, and evinced no desire to leave home on any account. July 31st.—Patient wonderfully improved, almost natural in her conduct, no excitement or restlessness, conversed with apparent ease; parents delighted, but feared a return of her difficulties at approach of menstruation, a natural fear which was shared in even by ourself. Sac. lac. for one week.

"August 7th.—Still gaining in every respect, very quiet and orderly, patient sewing when we reached the house. Placebo for another week. August 14th.—Menstruation present one day too soon; and much to the gratification of all, accompanied by no aggravating circumstances, excepting that she appeared more reserved in her manner. Placebo continued.

"July 22d.—Was informed that menstruation passed off almost naturally; was much more profuse and not dark and clotted as formerly. Patient gained much in strength and certainly in appearance. Sac. lac. for one week. At the end of two weeks more, viz: on the 5th of September, it was almost impossible to notice the difference between her actions and those of other people; she was then attending church and visiting her friends as naturally as she ever did in her life, and nothing of her old difficulties remained to be discovered, except in the impression amongst her friends and relatives that she was once insane. In six months from the time we began the treatment, we surrendered the young lady to her father and mother in a perfect state of health. I saw the lady as late as the 11th of October, when she continued perfectly well and wonderfully improved in general appearance, and, as late as the 14th of November, her father told us 'he could see no end to her improvement.'"

All writers emphasize the importance of early treatment, especially in cases of acute mania, as thereby the attack may often be cut short. Many cases, even when noisy and violent, can be treated more satisfactorily at home than in a hospital, provided that proper attendance and accommodation can be furnished.

Great care should be taken to keep the patient as quiet and free from excitement as possible. During paroxysms of excitement he should be kept in a room apart from the family, and the same precautions taken to guard against light and noise as in a case of brain fever.

Much stress is given, especially by French medical writers to the use of baths, both cold and warm, in the treatment of insanity.

The use of prolonged warm baths was introduced by Brierre de Boismont, and they are now generally adopted. The patient's body is plunged into a warm bath and remains there for six, eight or ten hours, and if thought best, cold effusions are made to the head at the same time. Warm baths should be used with caution if the patient is weak and cachectic, or if there is any tendency to lung trouble, and they are of most benefit in cases of acute mania, marked by a high degree of excitement and delirium. Care should always be observed lest syncope occur, or too great prostration.

The use of cold baths is more limited, and should be confined to the young, strong and robust. Their use also should always be followed by sufficient friction to produce a healthy reaction of the skin.

In many cases much trouble is caused from the filthy habits of the insane, and Dr. R. Lawson recommends the following treatment; he says: "Special attention was called to this matter from an accumulation of patients with extreme dementia, associated with general paralysis, softening of the brain and senile dementia.

"The principle seems mechanical but effectual, and patients became clean in many cases at once, and would go to stool, when before they would pass their feces involuntarily; and it also causes bed sores to be almost unknown.

℞. Acid Tannici, grs. 120.
Adipis Benzoat, grs. 80.
Cera alb, grs. 20.
Ol. Theobromæ, grs. 140. F't. Suppositories.

"Dissolve the oil of Theobromæ with the wax over a water bath, then add the tannic acid and lard, previously mixed in a mortar. Pour the mixture while fluid into suitable moulds, capable of holding 30 grains each."

Medical Treatment.—We come now to the medical treatment, and, as in my lecture upon melancholia, I must again acknowledge my indebtedness to Dr. Talcott, of the Middletown Asylum, for the results of his experience among the large number of patients under his care. He says the remedies used at the asylum are those whose effects upon the healthy were "proved" many years ago, and the verification of whose symptoms, in a curative sphere, has been demonstrated at the bedside of the sick repeatedly and satisfactorily. In other words, "old remedies," like "old friends," have been our main reliance. A few of the new remedies have been used, and in some instances with gratifying success. Drugs whose primary effects are largely manifested by their action upon the circulatory apparatus, the heart and its vessels, have most frequently proven themselves effectual in modifying the symptoms and promoting the recovery of those suffering with mania. Hence we find Aconite and Veratrum viride playing an important part in the early stages of this disease, which is marked by such an unnatural and exalted excitement.

The distinguishing features between Acon. and Ver. vir. are these: In Acon. there is a fitful mood, changing from one thing to another, now full of mirth, and in a few moments disposed to weep, and *great mental anxiety*; in Ver. vir., *excessive physical unrest.* The Acon. patient is fearful of the future, and terribly apprehensive of approaching death, predicting the day he is to die; the Ver. vir. patient is depressed, but comparatively careless of the future. The Acon. face is flushed bright red, or is pale, with moderate congestion; Ver. vir. has intense cerebral congestion, with a face flushed to a purple hue, and hot; or it is cold, with a pale bluish cast.

The Acon. case has great thirst, and gulps water eagerly; the Ver. vir. case has a dry, hot mouth which feels scalded, but the thirst is moderate. The muscles of the Acon. patient are tense, and the whole mental and physical conditions are those of an instrument strung to the highest pitch; the Ver. vir. patient is relaxed and restless, has nausea, retches and vomits profusely, has muscular twitchings, and constantly changes his position. In short the Acon. patient has mental anxiety with physical tension; while the Ver. vir. patient has a lower grade of mental unrest with physical relaxation.

Treading closely upon the heels of Acon. and Ver. vir., and, in fact, contesting strongly for the palm of superiority are Bellad. and Hyosc. Probably no remedy in the Materia Medica possesses a wider range of action, or greater powers for removing abnormal conditions of the brain than Bellad. Its symptoms are clear, well defined, unmistakable; its action sharp, vigorous and profound. It is the powerful supplementary ally of Acon. in removing the last vestiges of cerebral congestion, and beyond this it subdues like magic, the subtler processes of inflammation. The following are a few of its characteristic symptoms.

She attempts to bite and strike her attendants; breaks into fits of laughter, and gnashes her teeth.

Head hot, the face red, the look wild and fierce.

Inclination to bite those about one, and to tear everything to pieces.

She tears her night-dress and bed-clothes.

Furious delirium.

Fury; she pulled at the hair of the by-standers.

Much fury (with burning heat of the body, and open, staring, immovable eyes), that she had to be held constantly lest she should attack some one, and when thus held, that she could not move, she spat continually at those around.

His face was livid; his eyes injected and protruding, the pupils strongly dilated; the carotids pulsating violently; a full, hard and frequent pulse, with inability to swallow.

When put into bed, he sprang out again in delirium; talked continually, laughed out, and exhibited complete loss of consciousness; did not know his own parents.

A marked and happy effect will follow the use of Bellad. in cases, when, in addition to the flushed face, dilated pupils and throbbing arteries, we have a mental condition which manifests itself by the most positive ebullitions of rage and fury; and when the patient tosses in vague spasmodic restlessness; attempts to bite, strike, tear clothes, strip herself naked, and make outrageous exhibitions of her person. While in this state, Bellad. patients are exceedingly fickle and constantly changing; now dancing, singing, laughing, and now violent with intolerable rage. The speedy disappearance of such a grave and serious train of symptoms after Bellad. is administered proclaims its unmistakable power. The magic workings of this protean drug are also manifested in the relief of symptoms directly opposite to the foregoing. When you have a patient whose face is flushed to an intense reddish-purple hue, pupils widely dilated, eyes having a fixed stony stare and utterly insensible to light; heavy, almost sterterous breathing; stupid, dozed condition of the mind so that he cannot be roused to speak; inclined to remain quiet, but with occasional muttering, incoherent delirium; marked rigidity or steady tension of all the muscles, then you may give Bellad. in the confident expectation of reaping good results. The excitable Bellad. patient requires a minimum dose of the drug, while the stupid one is affected most readily and favorably by repeated doses of the 1st cent. or 1st dec. dilution.

Hyoscyamus gives us mania, with lasciviousness and occasional mutterings; singing of amorous and obscene songs; and uncovering of the whole body.

Delirium, without consciousness; does not know anybody; has no wants (except thirst), with closed eyes; talks of business; fears of being poisoned or sold; scolds and raves.

Unconscious, with aversion to light and company.

Jealousy, with rage and delirium.

Inability to think, thoughts cannot be controlled.

Sees persons who are not, and have not been, present.

Thinks he is in the wrong place.

Insane passion for work.

Indistinct muttering loquacity.

Abuses those about him.
Cannot bear to be talked to.
Makes irrelevant answers.

The Hyosc. patient is very excitable, but much less frenzied than the Bellad. patient; is very talkative, mostly jolly and good natured, but occasionally has savage outbursts; is inclined to be destructive and obscene, with a tendency to expose the person. Hyosc. is perhaps more often indicated as a remedy for female patients than Bellad., the latter being frequently indicated for the male insane.

Dr. R. Lawson, Assistant Medical Officer of the West Riding Asylum, of Yorkshire, England, in speaking of Hyosc., says: "Its use in *mania* with delusions of suspicion, and in simple and recurrent mania, also in mania associated with logorrhœa, or incessant incoherent talking, and in insane conditions characterized as a prominent feature by constant and apparently involuntary, or at least incontrollable destructiveness is often followed by happy results.

"There is one condition associated with mania, and not infrequently with senile dementia with excitement, which is most annoying, the propensity to the tearing of wearing apparel, blankets, etc. When appearing as a symptom of chronic mania it is frequently wilful, and is effectually put a stop to by single large doses of Hyosc. Case: The patient either in wanton mischief, or in retaliation for some imagined slight, or necessary exercise of discipline, either tears blankets in shreds, or strips his clothing in pieces. Three-quarters of a grain of Hyoscyamine invariably put a stop to his excitement, and he will remain quiet for a month or six weeks."

Again he says: "Hyosc. has great value in the treatment of cases in which aggressive and destructive excitement is the leading symptom of insanity; in cases of chronic mania with special delusions of suspicion, mania of a subacute or recurrent form, and simple mania characterized from the first more by agitation than excitement, and due to the existence of obscure delusions and hallucinations. Also useful in the excitement and epileptic seizures of general paralysis. But the most striking results are in cases of wanton and wilful destruction."

Following these remedies in the treament of mania come Canthar., Laches., Nux vom., Rhus tox., Sulphur, Thuja and Ver. alb.

The Canthar. patient has mental exhibitions somewhat similar to Bellad. and Hyosc., *i. e.*, frenzied paroxysms of rage of an exalted type, with biting, screaming, crying, tearing and howling or barking like a dog. This rage is renewed by the sight of dazzling, bright objects, by touching the larynx, and when trying to drink water. As an invariable accompaniment there is great excitement of the sexual organs. In this latter respect Canthar. resembles Hyosc. and Ver. alb., but these latter drugs commingle the psychical with the physical, the Hyosc. patient displaying lively fancies in connection with erotic desires, and the Ver. alb. patient uniting religious sentiment with lustful tendencies; but the Canthar. patient is strictly and solely the victim of lechery for its own sake, a result of the intense erethism of the sexual organs, impelling him to seek immediate physical gratification. Such patients are inordinate masturbators of an acute type. Proper restraint and the administration of Canthar. often affords prompt and happy relief, both from the sexual excitement and the paroxysm of mania. Very scanty urine, and frequent micturition are characteristic of the Canthar. patient.

Cicuta vir. is a remedy you will do well to keep in mind, it has: weeping, moaning and howling; doing all kinds of grotesque and foolish things.

Opium may be indicated both in melancholia and mania, and in spite of its abuse by old school physicians is called for by the following symptoms:

Delirious talking; eyes wide open; *face red;* puffed up.

Dulness of the senses and at intervals sopor, with snoring; sees animals; affrighted expression of face.

Unconscious; eyes glassy, half open; face pale; deep coma.

Imagines parts of the body very large.

Thinks she is not at home.

Illusions and frightful fancies.

Loquacious delirium, with open eyes and red face, furious delirium.

When your patient has gone hours without sleep, and it seems an impossibility for him to close his eyes, you will be able to give a good refreshing sleep ofttimes, by putting a few drops of Opium in half a glass of water, and giving teaspoonful doses of the solution every half-hour or hour; in other cases, however, you will find it necessary to produce sleep at all hazards in order to prevent nervous exhaustion, and be forced to use chloral in doses of from fifteen grains upwards.

Stramon. has its own peculiar marks especially in relation to the hallucinations.

The patient has a mania for light and company, cannot bear to be alone.

Has strange and absurd ideas; thinks herself tall, double or lying crosswise, one half of body cut off.

Thinks he converses with spirits, and prays fervently.

Hallucinations which terrify the patient; sees ghosts; hears voices; sees strangers, or imagines animals to be running around or jumping at him.

Talks all the time, sings and makes verses.

Coma, spasms; unconsciousness; jaw hangs; hands and feet twitch; eyes roll; pupils dilated; grasping of hands towards nose, ears, etc.; difficult to swallow liquids.

For loquacity, Lachesis is a most valuable remedy.

Nux vom. is useful in cases that are cross, irritable, ugly and obstinate. Rhus tox. and Hyosc. relieve the belief of having been poisoned, the former remedy being particularly adapted to low typhoid conditions. Sulphur is useful as an intercurrent, and also for fantastic mania, when the patient is inclined to deck herself with gaudy color, or puts on old rags of bright hue and fancies them the most elegant decorations. Sulphur seldom achieves a cure by itself, but sometimes seconds with vigor the efforts of other drugs.

Ver. alb. is a remedy whose sphere of usefulness comprehends both profound prostration of the physical forces and a most shattered condition of the intellectual forces. The fame of this drug extends over a period of more than three thousand years. It is related that about the year 1500 before Christ, a certain Melampus is said to have cured the daughters of

Prœtus, King of the Argives, who, in consequence of remaining unmarried were seized with an amorous fever, and affected by a wandering mania. They were cured chiefly by means of Ver. alb. given in the milk of goats. Dr. Talcott says that at the asylum they have verified the homœopathicity of Veratr. in amorous fever and in wandering mania, particularly when these symptoms of peculiar excitement are followed by great mental depression, and tendency to collapse. The Veratr. patient combines the wildest vagaries of the religious enthusiast, the amorous frenzies of the nymphomaniac, and the execrative passions of the infuriated demon. The patient soon passes from this exalted and frenzied condition into one of deepest melancholia; abjectly despairs of salvation, imbecile taciturnity and complete taciturnity both of body and mind. The extremities become cold and blue, the heart's action weak and irregular; the respiration hurried; and all the objective symptoms are those of utter collapse. With such a picture before us we can scarcely hesitate in the choice of a remedy, and Veratr. is the one selected.

Many, if not most, of the cases of mental disease reported in our journals as cured under the use of this or that drug, are extremly unreliable; owing to the careless manner in which they are reported, and also to a lack of knowledge on the part of the reporter of the natural progress and etiology of the disease. As a guide to aid you in choosing the appropriate drug either in a case of insanity, or any case when the mental symptoms are prominent I know of no work so valuable as Vol. 1, of Analytical Therapeutics by Dr. Hering, a work which should be in the library of every physician who desires to prescribe carefully and accurately for mental symptoms.

LECTURE X.

Mania Transitoria.—Folie Circulaire.

Mania Transitoria.

Mania transitoria is a form of mental disorder which suddenly appears in persons previously sound, or not supposed to be unsound in mind; it has a short duration and suddenly disappears.

Castelnau calls this "La Folie Instantanée, temporaire, passagère;" a mania instantaneous, transitory, fleeting, temporary; a mental disorder which breaks out suddenly, like the sudden loss of sense in some physical disease, and the subject is urged in a moment to automatic acts which could not have been foreseen. The first act of the mania may be homicide, and the disease may pursue its course under the continued or intermittent form, but when the act of violence or homicide is the only maniacal manifestation, it is instantaneous, temporary or transitory insanity according to Henke, Marc and Cazauvielh.

He says: "I could show by facts, already so numerous, recorded in the works of physicians devoted to the study of insanity, and the observation of the insane, the existence of a mental malady which society has the greatest interest to know, in order to prevent consequences dangerous to the community, and the person affected. We could cite a great number of facts sufficient to show that the various kinds of insanity, as of all the diseases of the organism, can establish themselves in a manner either progressive or sudden, and have a progress slow or rapid; continued, intermittent or temporary."

Dr. A. Devergie says in an essay read before the Imperial Academy of France: "There is another mode of alienation to which they give the name of Transitory Insanity, that is to say, without preceding apparent symptoms, without cause near or remote, appreciable to the world, bursting out as suddenly (brusquement) as a clap of thunder, and ceasing completely with a criminal act.

"No motive for the act, either in ungoverned passions, or in acquired ideas; previous character and manner without reproach; absence of hallucination; the explosion of mania manifesting itself in acts of violence or crime, and the immediate return of reason after this act is accomplished; these in my opinion are the characters of temporary insanity."

He qualifies the above a little by adding the following important statement: "Nevertheless the word *transitory*, perfectly just for the world, in the sense that the mania was fleeting (passagère), although the act was of the most criminal nature, does not seem sufficiently exact for the physician. The persons of this description should not be considered as sound in mind when the idea of crime suddenly rises within them, and becomes the ruling thought, irresistible, stronger than themselves, stronger than their own will. The antecedents of their families, hereditary taint, divers acts of social life, perverted tendencies and tastes, tendencies to silence and abstraction, thoughts of suicide for years existing in many; have been the forerunners of the sudden outbursts of irresistible criminal mania."

Dr. Otto Schwartzer says, in a little work on Transitory Mania, published in 1880: "It presents itself as a peracute physical affection, arising suddenly under phenomena of a violent, active cerebral hyperæmia, in the form of a wild and blind, spontaneous maniacal excitement or fury, with entire absence of consciousness. It is of short duration, lasting from a few to, in rare instances, twelve hours, and terminates in a deep and sound sleep, whereupon there ensues speedy recuperation of all normal mental faculties, associated with a complete amnesia of that which has happened during the access." The author gives the history of fourteen interesting cases, of which we translate the following:

"Case 12.—N. H., doctor and state official, æt. 35, married, and for a number of years an intimate friend of the author, came during a summer month to the capital in order to settle some difficulties which had arisen between himself and his superiors in office. He had been accused of neglect of his duties, and only after many inconveniences had finally sue-

ceeded in purging himself of the charges brought against him. At all times somewhat self-conceited and proud of his services rendered the government, he asked as a compensation for the injury thus done to him to be promoted to a higher position. In spite of a communication from a high official that nothing of that kind could be realized, and against the wishes of his friends, he continued to petition. One forenoon, after a renewed visit at court, where he was told that in his case a very unfavorable report would be sent in by the referee, he left the court-house in a state of great excitement. On his way home, in one of the most frequented streets of the city, he suddenly broke down. Picked up by passers-by, he roared some incoherent and threatening words, beat violently every one who tried to approach him, knocked out a number of show-windows, and was only with great difficulty secured and transferred to a hospital. Here this access of excessive furor continued for some hours; all attempts at medical interference proved impossible on account of his high degree of motor excitation, until suddenly he fell into a deep sleep, which lasted ten hours. On waking, he was psychically perfectly normal; he was quiet and cheerful, and showed complete amnesia of all that had happened in the interval. When the facts were related to him, he felt distressed to the utmost, and he himself diagnosed the access very clearly as one of transitory mania. He remained voluntarily for several days in the hospital, without showing, however, physically or psychically, anything abnormal. N. H. is of strong plethoric habit, and since leaving the University has frequently suffered from severe congestions, in consequence of excessive labor and late hours. Aside from this, he was a model of health, and of a sanguine and cheerful temperament. No case of neuro or psycho-pathic affections had ever before occurred in his family, several members of which ranked among high civil and military officials. N. H. returned home immediately after the accident, where he at once resumed his official duties with usual energy, though under unpleasant circumstances, without, however, experiencing, in the course of several years, a similar attack."

Dervergie quotes the case of a young man, æt. 19, the son of a merchant at Bordeaux. He had been most regular and exemplary in all his previous life, an affectionate brother, dutiful son, faithful to his employer, a banker, and the heir of an immense fortune; but he was the child of *insane parentage*, and had a step-mother for whom he had an intense aversion.

"There was a dinner party at his father's house which passed without unusual incident. At the time of the dessert, Julius, the youth, left the table, and went to the hall to warm himself; the fire was not burning; he went to his chamber and took his gun and straw-hat to walk in the fields as he was accustomed to do. Then the thought of suicide, which had troubled him for a month, suddenly presented itself and as suddenly changed to the thought of killing his step-mother. He threw down the gun, went to his brother's chamber, took two pistols which had been loaded three months, leaving his own pistols that he had loaded the evening before. He went to the dining-room where his step-mother was sitting at the table with his father, and discharged one of the pistols into her temple. He was rational immediately afterwards."

Devergie says: "If the act which young Julius committed was one of mania, it was in him a passage, sudden and rapid, from reason to insanity, and a return, as rapid, from insanity to reason. This then is a very exact example of that species of mania which is called temporary."

Drs. Gintrac and Delafosse, of Bordeaux, Calmeil, Tardieu and Devergie gave, as their opinions, that Julius at the moment of this action had not the possession of his freedom of will, and he was fully acquitted of the charge of crime. (*Ann. Hyg. et. Med. Leg.* XI, 2d Series.)

A few years ago much interest was excited by the trial of McFarland for shooting Richardson. The defense set up was temporary insanity, and Dr. Wm. A. Hammond testified as an expert for the defense. In 1870, he read a detailed "opinion" before the New York Medico-Legal Society, in which he said:

"There is a form of insanity which, in its culminating act, is extremely temporary in its character, and which, in all its

manifestations from beginning to end, is of short duration. This species of mental aberration is well known to all physicians and medical jurists who have studied the subject of insanity. By authors it has been variously designated as transitory mania, temporary insanity and morbid impulse. It may be exhibited in the perceptional, emotional or volitional form, or as general mania, and its exciting causes are numerous.

"*Transitory mania* may be defined as a form of insanity in which the individual, with or without the exhibition of previous *notable* symptoms, and with or *without* obvious exciting cause, suddenly loses the control of his will, during which period of non-control he commonly perpetrates a criminal act, and then as suddenly recovers more or less completely his power of volition.

"Attentive examination will always reveal the existence of symptoms precursory to the outbreak which constitutes the culminating act, though they may be so slight as to escape superficial examination. The hypothesis, therefore, that a person may be perfectly sane one moment, insane the next, and then again perfectly sane in a moment, is contrary to all the experience of psychological medicine."

Maudsley says: "A transitory mania, accompanied by homicidal and other destructive impulses may be produced by a sufficient exciting cause in a person who has a distinct insane neurosis, just as epileptic convulsions or mania may be produced when the epileptic neurosis exists. They are really cases of *acute general* mania, only they are of much shorter duration than acute general mania commonly is.

"While conceding unhesitatingly the occurrence of an acute attack of transitory mania on the occasion of a sufficient exciting cause, where there was an epileptic neurosis or an insane neurosis, or where there had been an injury to the head which had affected the mind at the time or afterwards, or when a previous attack of insanity had left behind it a tendency to the recurrence of the disease, I certainly hold that we ought to regard with extreme suspicion the allegation of transitory mania in excuse for crime, when none of these conditions were present.

"It must be acknowledged that most symptoms of derangement in addition to the morbid impulse, either antecedent to or concomitant with it, will be discovered if a careful examination be made, such symptoms as previously marked melancholic depression, morbid suspicion or actual delusions. It will be found that many of the suicides and homicides done by insane persons, are done by persons laboring under commencing melancholia, before the disease has developed into the stage of intellectual derangement; though overwhelmed with a vague fear of distress, dejected, sleepless and feeling themselves overladen with the heavy burden of their miserable lives; they manifest no actual delusion, and are not thought by their friends or medical attendants ill enough to be placed under control."

There are two important conditions which are precedent to an outbreak of insane homicidal impulse. These are the *insane neurosis* and the *epileptic neurosis*, in both of which the tendency is toward convulsive action. It is in strict accordance with the view taken of homicidal impulse as a convulsive idea springing from a morbid condition of nerve element and comparable with a convulsive movement, that it should most often occur where there is hereditary predisposition to insanity; it may be that in some cases there is not, but there can be no doubt that in the majority of cases there is, such a neuropathic state. It is in accordance again with experience that when this neurosis exists; and when the circumstances of life, or physiological and pathological conditions put a great stress upon the nervous organization, an outbreak of homicidal impulse should in some instances be the first overt evidence of insanity.

Among such physiological and pathological conditions we reckon the development of puberty, with the revolution which takes place then in the mental and bodily economy; pregnancy and the puerperal state; the change of life; irregularities of function in woman; the effects of excessive drinking and of other injurious vice. Not one of these conditions but has occasioned an outburst of insanity in persons predisposed to the disease; not one of these conditions furthermore, but

has, as the recorded cases show, occasioned an outbreak of homicidal insanity."

Although epilepsy, marked or not, will be found to be at the bottom of most cases of mania transitoria, it must be admitted that there are some cases in which there is no evidence of epilepsy in any of its forms to be found; but it may well be doubted whether a distinct insane neurosis is not always present in these cases. With such a constitutional predisposition, a genuine attack of acute insanity, lasting for a few hours only, or for a few days, may break out on the occasion of a suitable exciting cause, and, during the paroxysm, homicidal or other violence may be perpetrated. After child-birth it sometimes happens to women, or even in some rare cases at the menstrual period. The effect of alcoholic intemperance upon a person strongly predisposed to insanity, or upon one whom a former attack has left predisposed to a second, is, sometimes, a short but acute mania of violent character, with perhaps vivid hallucinations and destructive tendencies, and a like effect may be produced by powerful moral causes, sexual excitement, and the other recognized causes of insanity.

Says Dr. Hammond: "The symptoms indicative of an approaching attack of temporary insanity are chiefly those of cerebral congestion, though it will be found upon thorough examination that other organs beside the brain are more or less deranged in their functions. Thus the appetite is lessened, or altogether abolished, the bowels are torpid, the kidneys fail to eliminate the normal quantity of urine, the heart becomes irregular in its action, and beats with increased frequency,—a certain sign of a weak and excited nervous system, and the skin is either bathed in perspiration or harsh and dry.

"The initial symptoms of cerebral congestion can always, even when slight, be detected by a physician accustomed to the study of the diseases of the nervous system. Among the most prominent, and in its effects the most exhausting, is wakefulness. It indicates an increased flow of blood to the brain, and in turn reacts upon this organ, and still further deranges its normal functions. The effect therefore becomes a cause.

"With the wakefulness there is generally combined great

mental and physical irritability. He may likewise have illusions, hallucinations and delusions, and when he does toward morning obtain a little sleep, he is disturbed with frightful dreams which prevent his being refreshed."

Even in healthy persons or in persons of plethoric habit, this determination of blood may occasion transient delirium, with various signs of encephalic disturbance, such as extreme sensibility to light and sound, restlessness, pain in the head and visual hallucinations; a flood of distorted ideas flows through the mind, and overpowers it; bewilderment and incoherence follow, and for the time being the patient is to all intents and purposes maniacal.

In addition to other evidences of mental and physical disorder, the face is flushed, the eyes suffused, the carotid and temporal arteries beat with increased force; vertigo is complained of and the pupils are contracted.

Such a condition may exist for weeks or months and then pass away, or terminate in apoplexy, epileptiform convulsions, inflammation of the brain, or an attack of transitory mania.

Dr. McIntosh, of the Murray Royal Institution at Perth, in Scotland, says: "Ordinarily friends around do not dream of mental derangement, and even one examination by a physician may not always lead the patient to betray his defect, unless very skilfully handled; yet, in no long time, a desperate or disgraceful act may startle all alike by its impetuous suddenness and dangerous nature.

"For instance, it is related that a gentleman of high attainments and character, while in the apparent enjoyment of excellent health and spirits, had a dinner party of his friends; there was no one present so agreeable and attractive in conversation and manners as himself, but in the middle of the festivity he arose, and politely apologized for absenting himself for a moment, retired to an adjoining room, and cut his throat to the vertebræ at the very time his friends were drinking his health."

The acts performed during temporary insanity, in their more obvious aspects, and when viewed isolatedly, resemble those done in the heat of passion. *But they are so only as re-*

gards the acts themselves. Thus a person entering a room at the very moment when one man was in the act of shooting another, would be unable to tell whether the homicide was done in the heat of passion, or under the influence of temporary insanity. The act, therefore, can teach us nothing. We must look to the circumstances and to the antecedents of the perpetrator for the state of facts which are to enlighten us as to the state of mind of the actor. Now the conditions of temporary insanity are so well marked that there can be no difficulty on that score. Suffice it to say that the act which marks the *height of the paroxysm* is always preceded by symptoms of mental aberration; while acts done in the heat of passion are not thus foreshadowed.

In cases of temporary insanity, after-evidences are nearly always present, and remain for days, weeks or even months and years. These symptoms are in general those of cerebral congestion.

Folie Circulaire.

The French have described under the name Folie à double forme, or Folie Circulaire, a special form of mental disturbance marked by two regular periods, one of exaltation, mania, and the other of depression, melancholia, both of which together go to make up a paroxysm, just as the chill, fever and sweat constitute an attack of intermittent fever. Each attack may be separated by a lucid interval, or they may follow each other continuously. In 1845, Griesinger, noticing this class of cases, said: "It is not rare to see the whole disease consist in a cycle of the periods alternating very regularly. Other observers as well as myself have seen cases in which a state of melancholy occurring in the winter, is replaced by mania in the spring, and again transformed into melancholy in the autumn. The condition of mania alternates regularly with that of melancholy, and sometimes these attacks regularly occur at certain seasons of the year. Falret was the first to apply the name folie circulaire, because the existence of this class of the insane rolls in a fixed circle of dis-

eased states which are constantly reproduced, and are only separated by short intervals of reason." Baillarger noticed that in many cases a lucid interval did not occur between the states of mania and melancholy; that the association of the two formed the full attack, and that the intermission when it occurred, did so only after the evolution of this double period, hence the name folie à double forme. Although I have used the terms mania and melancholy, the two states whose succession forms the folie circulaire are, strictly speaking, neither mania nor melancholia as they usually appear. In the first state there is not the incoherence of ideas as in mania, but a simple delirious excitement, that is to say, an extreme activity of the mental faculties, attended with great restlessness and a lack of order in all the actions. In the second, there is no restricted lesion of the intellect with predominance of certain well-defined delirious ideas as in ordinary melancholia; but a physical and mental depression, at times carried almost to the complete suspension of the intellectual and affective faculties. This period of depression is longer than that of excitement, and it is remarkable that while mania and melancholia taken separately are the most curable forms of mental disease, they are the most intractable when occurring together as folie circulaire. Falret, who long had charge of La Sâlpetrière says, that he never saw complete recovery take place, or even lasting improvement. As it has been my lot to meet several cases in private practice as well as in asylum life, I judge that you may meet with the same, and shall therefore spend more time upon this variety than I would if it was more fully described in our English text-books.

As was said before, folie circulaire is characterized by the successive and regular evolution of a state of mania, of melancholia, and a more or less prolonged lucid interval. It varies in severity and duration as to its whole, and as to each of its periods, both with different persons and in successive attacks in the same person. In some cases the circle is described in a few weeks, in others it requires months or even years. But whether the march be slow or rapid, the essential features of the disease remain unchanged either in generals or in particu-

lars. Thus we class it as a well defined variety, having a right to a name of its own, as it presents a group of physical, intellectual and moral symptoms always the same at a given time, and succeeding each other in a given order. It has perhaps a juster claim than either melancholia or mania to be considered a distinct variety of insanity, for it is not based upon the single characteristic of excitement or depression, but upon the junction of these states succeeding each other in a fixed order, capable of being foreseen and not changeable. A marked feature in folie circulaire, as in epileptic insanity, is the similarity of the different attacks occurring in the same person. This is true not only of the principal but also of the lesser symptoms; not only as to the excitement and depression, but as to the particular ideas and emotions as well as the physical symptoms. In some cases this is carried so far as to reproduce exactly the same symptoms at the same period of each attack.

In describing a case we will commence with the maniacal stage. In general this stage is characterized by a simple exaltation of the intellect and the sentiments, such as we experience when the mind is active and everything seems easy, and when nature appears under her most smiling aspect. The patient presents only an increased activity of the mind, but to the careful observer it seems as though some change were impending by little alterations in his actions, his manner and his sentiments. This gradually increases, and in a short time the exuberance of thought is excessive, and the sentiments are changed. Evidences of hatred and dislike are shown toward those who were but lately very dear, and tokens of love and friendship toward those who were bitter foes. The movements are rapid and incessant. In this state the patient, if left to himself, will displace and overturn his furniture, keeps changing his room, and disarranges his garden and grounds. He is full of tricks and malicious, playing all manner of practical jokes, and is full of projects which he carries out at once; he composes music, writes in prose and verse, and this prodigious activity of spirits which overflow at all points is the same at night as by day. The person feels in perfect health, often in-

deed, ailments previously existing are suspended during this stage of exhilaration; the appetite is increased, all the organic functions seem to have increased activity, and despite the absence of sleep, the person endures happily and without fatigue the constant restlessness, and the excesses he commits. The face is flushed, the eyes bright and sparkling, the features are mobile and the senses are acute. This excitement remains about the same through the whole period without reaching the extreme and wide spread disturbance of the sentiments and ideas found in ordinary mania. Still there are some cases in which the stage of excitement consists of a true attack of mania with grave and well defined illusions and hallucinations; but it is more common to find cases where the mild delirium above portrayed seems interrupted by a spell of maniacal excitement or even intellectual weakness, especially if the patient is advanced in years; but the general course of the delirium is of a mild type.

After a time of varying length, we see this excitement diminish as gradually as it arose. As it ceases we find a condition that is hard to define or describe; it seems to partake of excitement half finished and depression just begun. Is this a true lucid interval? It would seem not, and yet there are cases where it would be difficult to say that the person was not in his right mind; but a very careful examination will show that he seems rational only in contrast with his previous condition. Such seem able to control their ideas for a time, and even to conceal some of the wandering thoughts remaining in the mind, induced by the past delirium, or those which commence to intrude as forerunners of the state to follow. In order to judge properly of their condition we must notice their omissions to do, as well as their actions. We see that they do not act or speak as freely as do persons perfectly sane, and such negative points are quite important. Still there are cases, rare indeed, where no trace of confusion can be found, and the person seems in full possession of his faculties; but in any case this state is of short duration, and always much shorter than the lucid interval following the period of depression.

The stage of depression generally begins slowly, especially in those cases which require much time to complete the circuit, but there are cases where it sets in abruptly. When it comes on, how changed is the scene! and the more we observe, the more we wonder at the change so short a time has wrought. The audacity and enterprise of mind have given place to sadness, discouragement and inertia; the patient distrusts himself, thinks himself incapable of accomplishing anything, becomes avaricious, irresolute, timid and yielding. Imagination is quiescent, and the intellectual efforts are wanting in dash or vigor, often indeed a prey to the most sombre thoughts; they bitterly regret the resolutions taken at other times, seek to retrace their steps, and feel only disgust and indifference for all that lately aroused their enthusiasm.

At the beginning of this stage of depression, the patient, instead of running after others to overwhelm them with a torrent of words; instead of tormenting and playing tricks upon those around, and giving himself up to pleasure, holds himself aloof and speaks but seldom. Sometimes he acts as though ashamed of the state that has just passed, and which he remembers more or less perfectly. Others display great humiliation. Gradually all these symptoms are intensified, the patient remains quiet and alone. So much as he was imperious and exacting in the period of excitement, so much now is he humble in the time of depression, and at times this humility goes so far as to induce a refusal of even needed care and attention, on the ground that he is not worthy. This abasement becomes daily more pronounced, until in extreme cases, there comes a time when the patient seems almost transformed into a statue. The instinct of self-preservation is so weakened that the individual no longer seeks food, or even accepts it when offered, unless strongly urged. The current of ideas is also affected, but seldom reaches a complete suspension of the intellect. The emotions are weakened, he neither manifests likes nor dislikes, but yields to any external influence. All spontaneity of action is lost, frequently it is necessary to lead the patient from place to place; to dress and undress him, or at least to give him the start in doing these things.

The physical symptoms are as follows: The face is pale, the features drawn down, indicating weakness rather than anxiety; the eyes are dry, the lids about half opened, and all the senses seem half asleep. He seems to have a feeling of general malaise, and all his motor powers are in a torpid state. The appetite is poor and he eats slowly; digestion is imperfect and the act of defecation painful. Sleep is more natural than during the excited stage, but it is neither regular nor peaceful. Such is a brief picture of the stage of depression, which might be spoken of as the base of a condition of melancholia, without its relief, without its prominent delirious ideas. Still as we have shown, in some cases these are not entirely absent and we find ideas of humility, of ruin, of poisoning and self-wickedness.

The stage of depression is generally longer than that of excitement, and it is long when the latter is also. There are times, however, especially at the onset of the disease, when the two periods seem about equal. This period after arriving at its height, remains stationary a short time and then gradually decreases to pass into what is known as a *lucid interval.*

Gradually the patient seems to come to himself; to awaken to his relation to others; he comes out of his state of physical and mental torpor, he speaks more freely and returns to his usual habits, although he retains a certain sluggishness in his speech and actions. Ere long he appears to be in perfect health, although close scrutiny detects in most cases a certain lowering of the level of the intelligence. The state of depression has not wholly passed, although to the superficial observer there appears a state of perfect health. In fact, the more care and experience we bring to bear in our judgment as to this transition stage, the more we shorten the duration of the lucid interval, the more difficult is it to say that the patient has perfectly recovered his reason. Still the lucid interval does exist. It is usually shorter than either of the other periods, but its length varies according to whether the cycle covers a long or a short term; in the first case it too may be quite long.

The same remarks that we made about the end of the stage

of melancholy, will apply equally to the lucid interval. The keen observer already sees the impending excitement, when the inexperienced still sees perfect reason. The symptoms of the approaching excitement now appear and a new cycle of disease begins, unfolding itself with the same features and the same ending. Thus the life of this class of the insane seems to move on in a regular circle. We have here sketched only the outlines of this form of mental disease, which to our mind merits a more careful study, but I think that you can gain from my description a fair idea of the principal symptoms.

As I intimated before, this form of insanity has not been noticed as it deserves; generally the observer, in forming his diagnosis, contents himself with noting the condition of the patient as it exists at a given time, instead of reviewing the whole course of the disorder. Hence we are apt to class our patients as maniacal or melancholic according as we see them at the time. Then many times the physician is not able to watch the patient long enough to enable him to form a correct judgment. In other cases the severity of the attack is not great enough that the person be secluded, or the services of a physician secured, but he merely gets the name of being "strange." The parents and relatives are very reluctant to acknowledge the insanity of the individual and resort to all kinds of evasions to hide it. Thus the period of depression is to them a time of mental lassitude and discouragement which they ascribe to the most trivial causes, the person remains at home, saying and doing little to attract attention. During the excited period, the parents deceive themselves in other ways; part of the time the person seems slightly exhilarated, and the family pride themselves upon his gaiety, brilliancy and wit. If he presents alteration of sentiment and commits improper and malicious acts, he is peculiar, odd, changeable, hard to live with, but it is seldom that the word insane is ventured upon.

Folie circulaire occurs more frequently in women than men, and is very apt to be hereditary. The prognosis is unfavorable so far as recovery is concerned; the most we can hope for is to shorten and lighten the paroxysms, and lengthen the

lucid interval. A knowledge of this form of mental disease will often be of service in a medico-legal point of view. For if a person affected by this form of insanity commits some offence against the law, the physician who is cognizant of the existence of folie circulaire and understands its peculiar features can distinctly show its presence; and at any stage in its progress can point out its course, and the result will justify his prognosis. He may thus protect innocent, because diseased, persons from unjust punishment, and further the cause of justice, as well as of humanity.

LECTURE XI.

Monomania or Instinctive Insanity.

The term monomania applied by Esquirol to the different instinctive insanities in which the intellectual faculties remain comparatively unaffected is entirely wanting in fitness; for in this form of mental disease the delirium does not always fix upon a single idea, nor a single set of ideas, and it may even change its form. The term then should be discarded in favor of that of "instinctive insanity," as more accurately expressing the psychical element specially affected.

If in instinctive insanity the imagination produces false, absurd and ridiculous ideas, it is because, according to the mental law which acts equally in the abnormal as in the normal activities of the mind, it exercises itself conformably to the strange or perverse *passions* which are produced by the disease and hold it in an *impassioned* state.

In this form of insanity the memory is unimpaired; the attention can be well sustained, and the patient is guilty of no gross fault in reasoning; he gives to things their right names, and, as a rule, their proper relations; a point very often overlooked by those trying to feign insanity, as they are apt to apply the wrong names to objects and to give senseless answers.

The will of the monomaniac at times manifests a tremendous energy. When the passion ruling him imperiously demands to be satisfied, he will seek that satisfaction with unparallelled tenacity; with the proverbial "will of a madman." The absence of all instinctive opposition to his powerful and unvarying desire is the cause of this perseverance and energy of will. Here, his will is only the active power of an impassioned desire, and not of his deliberate free will or judgment; this will or impulse does not partake of any freedom, it is determined by the nature of the desire alone.

As a rule the homicidal monomaniac will kill with the greatest sang-froid, with the greatest calmness, without giving any warning of the crime to be committed. The suicidal monomaniac will make all his needed preparations with equal coolness even when they require much time, as did those of a Frenchman near Naples, who spent three or four years in secretly making a guillotine, and who committed suicide the day it was finished. All these instinctive insanities are serious in their nature, because the cerebral disturbances giving rise to these abnormal passions are generally deep-seated and persistent.

This absence of all instinctive opposition to the ruling desire, renders the patient not only very tenacious in his ideas and wishes, but also exceedingly intolerant and reckless. If this person reasons and forms conclusions leading to errors, absurdities and immorality, it is because he is inspired and directed by this controlling passion. If he judges after a process of reasoning, he is still controlled by his passions for they furnish the premises on which his arguments are based. If he judges by instinct, it is again his passions which control his instinct. The falsity, absurdity and immorality of these judgments does not come from a lesion of the intellectual faculties, since they are logically drawn from the premises furnished, but they are due to the fact that these premises are derived from the perverted state of the passions ruling the mind. The reasoning powers are so far untouched, that upon all other subjects the monomaniac can imagine, think, reason, judge and act, conformably to the dictates of reason, basing himself upon true premises.

"As an argument against the existence of partial insanity use has been made of the asserted *unity of the intellect.* The intellect being a whole, it is said, it cannot be partly sound and partly unsound. But this objection falls to the ground before the fact that the origin and seat of these partial insanities lies in the instinctive elements of the mind, and not in the intellectual faculties, and that these latter become involved only as a consequence of the former.

"Morever when they speak of the *intellect* as being one they confound it with the *mind* which indeed is one. The intellect is made up of three distinct faculties, viz: perception, memory and the power of reflection. Again as has been intimated above, the seat of this class of insanities is in the instinctive faculties of the mind and, as is well known, we have here faculties of the most conflicting nature, such as moral and immoral desires, perverted and eccentric wishes and passions of every kind and nature, good and bad, both in health and disease, and any one of these may become the seat and source of a diseased or disordered condition of the mind, and thence of the brain." (Despine; *de la Folie.*)

The patient reasons so well about his false ideas, that in hearing him talk we may easily forget that we are dealing with a madman, and we try to overcome his delusions by sound arguments, such as we could use toward a man of sane mind whom we thought in error. Despine relates a case of an insane woman who experienced pains in the bowels after each meal, and imagined that *some one* poisoned her food. She reasoned so well upon every other subject, and even upon her fixed idea, her premises being granted, that several times he endeavored to overcome her error, by piling up proof upon proof, forgetting that he was arguing with a person whose brain was diseased. One day, after listening quietly and without interruption she said to him, "You may be right, but I *feel* that it is as I tell you, and nothing in the world can take away that feeling or convince me to the contrary." The words that this woman used to show her belief were remarkably apt and expressive, she did not say I think, or I know, but I *feel*; she invoked no intellectual or material evidence, but the testimony

of her instincts, of her feelings, the most convincing of all witnesses to the mind. Nothing will dissipate her delusion so long as a cerebral trouble imposes upon her mind the feelings of distrust and fear giving rise to this erroneous belief. It has already persisted four years, and, as her disease is incurable, the belief will never cease until all her mental faculties are destroyed by dementia.

It is said with truth that an insane man is an unfortunate, who knows not himself. No one is so strenuous as to his sanity as is the insane, no one cries more persistently, "I have a perfectly sound mind." When a man, upon the border line of insanity, perceives that he has become the prey of certain passions and emotions which disturb his mind and control his thoughts, he is not yet fully insane, but he has a suspicion or fear lest he may become so. Such cases are common. But when he does become insane such fears no longer trouble him, and he deems himself rational.

An insane man who has committed a crime will deny his insanity when brought into court, and judge and jury are apt to take him at his word. Physicians as a rule are unwilling to acknowledge the presence of insanity, unless they can also detect some well marked pathological change. But that such cases can occur is shown by the fact that old age often produces cerebral weakness, which, without being pathological, is accompanied by the ordinary physical symptoms of insanity; together with disorders of the instinctive faculties, such cases end in senile dementia.

We will now consider instinctive insanity under the three forms described by Esquirol and accepted by Dr. Ray.

1. Partial lesion of the intellect.
2. Affective mania.

We shall see that these two forms have a common origin in one or many perverted or exaggerated instinctive elements, placing the patient in an *impassioned* state.

The second of these two forms is especially dangerous, since it is impulsive in its nature. The passion for killing for the sake of killing; of robbing for the sake of robbery; of arson for the sake of arson, are in fact passions which never arise in

the healthy well-ordered brain; but only when the brain is diseased or under the domination of some immoral influence. And in such conditions we find an entire moral blindness of the mind toward the wrong and evil nature of the acts committed, and hence no sense of remorse; since no sentiments of a moral duty and conscience arises to conflict with them.

3. The third, which he calls lesion of the will or impulsive insanity, consists in perverse desires, imperious, irresistible even, which do not place him in this impassioned state, nor bind him as to the morality of his acts. Then we see this form presenting the singular mingling of sanity and insanity; not upon different points, as in the first two forms of instinctive mania, but upon the same point. This impulsive insanity consists wholly in abnormal, perverse, irresistible impulses, and is the one to which the term *moral*, should be confined.

Partial Intellectual Mania.—This form of monomania manifests itself by one or many delirious ideas created by the imagination under the influence of a ruling passion; a passion which has been awakened in the mind by the pathological activity of the brain. These ideas are generally remarkable for their absurdity and exaggeration, sometimes for their perversity, and always by their falsity. These ideas, more than any others, occupy the mind of the patient, and he, *feeling* by the passion which controls that they are undoubted truths, becomes perfectly unconscious of, and blinded to, their true nature.

These delirious ideas, so varied and grotesque, originating from the passions, may vary according to the nature of the feeling prompting them. Two opposite classes of feelings corresponding to the conditions of the brain may give rise to these delirious ideas. Cheerful, expansive, ambitious, generous, proud emotions; passions marked by exaltation of mind, correspond to an overactive condition of the diseased brain. Passions marked by sadness, moral weakness, discouragement, distrust, fear, inactivity and indecision, all correspond to a lessening in activity, a want of normal power in the brain. But these latter emotions, without losing their character of de-

pression, also have periods of activity; and the form of insanity to which they give rise is called melancholia. If this prostration in the cerebral action is excessive, it gives rise to intellectual and moral stupor, the so-called melancholy with stupor. That these two opposite mental conditions are accompanied by opposite physical conditions of the brain may be reasonably supposed; for excessive physical restlessness always accompanies the delirium of excitement, and great prostration the depressed passions.

"In monomania proper, and in melancholia," says Maudsley, "we have a partial ideational insanity, with fixed delusion upon one subject, or a few subjects, apart from which the patient reasons tolerably correctly. Psychologically speaking the existence of a delusion indicates fundamental disorder of mental action,—*radical insanity*,—secondly, the delusion reacts injuriously upon other mental phenomena, interfering secondly with correct ratiocination, or due co-ordination of function, and predisposing to convulsive mental phenomena; and, thirdly, while it cannot be subordinated to reflection, the individual may, at any moment, be subordinated to it, and act under its instigation."

The following are some of the more common delirious ideas. The expansive, vain, ambitious sentiments produce ideas of grandeur, power, riches and of generosity. He fancies that his coffers are filled with gold; he leaves his ordinary occupation to engage in wild, irrational speculations, in whose success he firmly believes; he claims to rule the stars and the clouds, he threatens rain or a drought, he calls himself prince, or some illustrious man of ancient or modern times, king, pope, and God himself, and so far as possible he plays the character he assumes. Under the influence of strong emotions of distrust, fear and sadness, he believes himself persecuted, followed by the police, persecuted by secret societies, and the inquisition; pursued by implacable enemies; ruined or dishonored; he sees a trap in the most trifling incident, a threat in the most natural expression. He hears things constantly, and is always trembling, he doubts everything and everyone. One person thinks his limbs are glass and dares not move for fear of

breaking them; another dares not urinate lest he flood the country. The pains that they experience in the different parts of the body, become a basis for their false ideas. He may think that his bowels are obstructed, and all his viscera destroyed, that he has no stomach, he cannot swallow, nor go to stool; his food is poisoned so that he refuses to eat and drink, and his fear and distrust are so great that he will die from hunger and thirst for fear of being poisoned. Another, if the general sensitiveness of the skin is increased, thinks that his nourishment passes through its pores; that he is eaten by animals and devils. If deceived by hallucinations of smell, or disagreeably impressed by the unpleasant exhalations of their bodies, they think they are becoming corrupt. You will notice that some of these same false ideas were present both in ordinary cases of mania and melancholia; but in melancholia, beside these special ideas, we find general sadness and depression; fear, distrust and discouragement coloring all the thoughts. Melancholics are the most unhappy people in the world, and merit all our sympathy and pity; they suffer just as much as if there was a real cause. The insane person who thinks himself condemned to death, suffers as much as the criminal awaiting the hour of execution. Under the influence of the sad feelings which control them, the insane fancy all kind of dangers and horrors, and they are in a measure held absorbed in these ideas by the hallucinations that often accompany them. I do not say, however, that the hallucinations render these ideas more tenacious, for when the cerebral trouble is cured, the hallucinations are counted at their true value. It is not always easy to refer a delirious idea to the emotion prompting it; but the important thing for the psychologist to keep in mind, is, that the source of the delirious ideas of the insane is in the instinctive elements which control his mind and direct his thoughts, and also that the nature of their ideas depends upon the nature of the passions arising in the brain.

The reasoning faculty is unaltered. The monomaniac reasons as formerly; from the premises which he accepts he draws his conclusions as rationally as if sane. Upon all

which concerns his ruling passion he takes as a base, for premises, the false, absurd and perverted ideas prompted and inspired by that passion. With such a basis, the conclusions and judgments must be equally irrational and absurd; but since his mind is entirely controlled by this passion, no idea can arise of sufficient weight to oppose or correct the erroneous ones, and the faculty of comparison being lost he cannot judge aright. Thus the conclusions reached by the insane are in necessary sequence to their premises. The judgments are false, absurd and irrational from premises of the same nature; but they are true, just and moral when they are derived from right premises; and thus we see how a person can be under the influence of partial insanity.

Says Despine (*Psychologie Naturelle*): "In an attack of mania a man strips off his clothes in public, crying out that he is father Adam, and has no need of clothing. To what elements shall we refer these ideas? Doubtless to an unbounded pride which led him to suppose himself a celebrated person, and he chose that person who chanced to be present to his mind at the moment when this feeling demanded to be personified, to be fixed in some outward form. Then starting from the idea that he is Adam, he concludes that he ought to wear no clothes since Adam wore none. In such a case the saliant points really teach little, while the pride, the very foundation, scarcely appears."

Some very interesting examples of the tenacity with which the monomaniac will cling to his delusions, and the manner in which every occurrence is made to contribute to the ruling or dominant passion of the mind will now be given.

These cases were reported by Drs. Drouet and Foville, at a meeting of the Medico-Psychological Society at Paris, in 1872. Says Dr. Drouet: "During the siege of Paris by the Prussians, I was sent with 550 patients from the asylum at Ville-Evrard to that at Vauclose. Everything around us vividly portrayed the scenes of war, and if the patients had been sane they would have taken an active part in the disastrous events which succeeded each other so rapidly. But they remained passive and indifferent. Strange to say, in spite of the inces-

sant roaring of cannon, and the other signs of war, some of the patients insisted that there was no war, and that we were making use of ridiculous pretexts in order to keep them shut up. Some of the patients escaping were driven back by the Prussians, and even then were scarcely convinced of the reality of the blockade."

Dr. Foville reported that a similar state of mind existed among his patients at Charenton. The situation of this hospital was such as to overlook a large extent of country, and here, for months, the most vivid and realistic scenes of war were daily witnessed, embracing all the engagements on the southern side of Paris. Three forts, many redoubts and numerous batteries were constantly giving proof of their existence to the eye and ear.

The combats of Ville-juif, Choisy, Rond-Pompadour, Crétail, and Montmédy took place in full view; the whole country was filled with soldiers, and the coming and going of artillery, infantry and ambulances. A few of the inmates watched the progress of events with a fair degree of interest, but the number was very small.

"As a rule the patients remained completely indifferent to all that was taking place so near them; *their impressionability was too much deadened, or they were too much absorbed in the inner contemplation of their delirium to take any interest in the outside world or its events.* Others, and these excited my great surprise, were in a state to notice all these occurrences, but they never recognized their true nature, nor believed in the reality of the war. They saw and heard everything, but interpreting it all in the light of their delirious conceptions, denied their reality and believed that it was all done to deceive them.

"The explanations varied in different cases. Mr. X. told us each day that this pretended war was only a comedy, whose successive scenes had been prearranged between the French and Prussian governments. The proof was that all the arms, muskets and cannons were only charged with powder. All that was told him as to the wounded and dead was pure invention. If by chance a ball had been fired it was by accident, or through the treachery of some evil disposed person.

All those around might be deceived by the comedy, but it was useless to try to fool him, for he knew too much."

The blindness of mind in this case was very remarkable. According to the ruling passion directing his thoughts two nations had conspired to deceive one individual, and for this purpose had brought together in mock battle thousands of men and spent enormous sums.

"Another patient who read all the papers and appeared to follow all the events with intelligence affirmed that he was not foolish enough to believe all the accounts he read, nor accept as real the noise of the artillery.

"During the second siege, and the terrible cannonade of the last days of the fighting in the streets of Paris, he preserved the same attitude. Even to-day he assures me that he was never the dupe of what he was told; he knows that Paris was never really besieged; that all the noise he heard was made by some fools who fired the cannon to amuse themselves, but whose real motive was to drive him, Prince Emile, to extremities, and to have a pretext for causing him to starve, by reducing more and more the supply of food for the whole institution.

A still more remarkable case is that of Z., a captain in the Imperial Guard who labored under delusions of persecution with hallucination, and was admitted into the asylum at Charenton only a few weeks before the breaking out of the war.

"One would naturally suppose," says Dr. Foville, "that his profession, his having many friends in the army, and his comparative clearness of mind, which in many respects was perfect, would have caused him to be interested in the military events, and that he would have followed the various reverses of the war with an intense interest. But the opposite was true. He constantly denied the most evident facts. The succession of disasters, the investment of Paris, the capitulation of Metz, when his regiment and comrades were made prisoners, the fights around Paris, which took place before his eyes, the bombardment from the forts, which he constantly heard, the insurrection in Paris and its deplorable results, and the formation of a second army, all was to him as if it had never happened.

He never ceased to believe that the empire was at peace, and the emperor at the Tuileries; that all means of communication were open, and that it was due to our making common cause with his persecutors that no letters were received from or sent to his friends; also that all the cannonading round the house was made by some of the officers of his regiment, whom he named, for the purpose of tormenting him. When he read the papers containing an account of all these military events he would insist that they were copies printed especially for the purpose of deceiving him; and he persisted in this belief even when he was handed his five or six different journals all of the same date relating the same facts; and he insisted that the Imperial Guard was still at Versailles, the empire at peace, and Metz not captured."

We have said that these delirious ideas are the offspring of the imagination. But what is the imagination? It is the faculty of forming ideas under the guidance of the instinctive elements of our being, by means of previously acquired knowledge. The results furnished by this knowledge are the more readily accepted by the mind for the formation of delirious ideas, the more closely they are related to the ruling passion. The patient possessed with fear, soon creates some vivid fixed idea upon which that emotion can rest. The most insignificant objects serve as a focus upon which the passion can ultimate itself. A hastily spoken word, a blade of grass, a pain, a sudden encounter, a memory, an event impressing the mind, political, religious, scientific, social and other ideas, the whim of the moment, in fact anything and everything, is seized by the imagination to give form and expression to the passion; no difficulties nor impossibilities will stand in the way of its adaptation to the diseased emotion; and this is equally true with regard to the insane and the man in anger. For example: A man becoming insane had some little pimples of acne on his face. Under the influence of the dread and distrust which were his ruling passions, these scarcely perceptible pimples became the focus of his delirious ideas. He thought himself hideously disfigured, and constantly viewed himself in a hand-mirror which he carried with him.

He said that he was an object of disgust to the family, and he wished to leave home and remain in a hospital until cured of what seemed to him a serious disease. Sometimes the insanity developed in the advanced years of life, is only an exaggeration of the eccentric, erratic traits of character natural to the individual; such was the case with the celebrated J. J. Rousseau, whose melancholy terminated in suicide. M'me de Stael says of him: "His mind was slow but ardent. He had no sudden impulses, but all his thoughts grew by reflection. He would at times become enamored of a woman merely by thinking about her while absent. Sometimes he would leave you on more than friendly terms, but if, perchance, you had said a word that could displease him, he would recall it, exaggerate it, think and brood over it for days, finishing by getting angry with you."

In order to give you an idea of the influence of the feelings upon the nature of the thoughts created by the imagination, I will quote from a letter written by a hypochondriac. "If I decide to ride horseback, I see myself falling from the horse and bruised on the rocks; the idea of a sea-voyage always leads to that of ship-wreck. In the country the fear of snakes constantly pursues me, it even seems that they are in my bed. No matter how secure my chamber may be, I cannot go to bed without making a thorough search for serpents, and I scarcely dare to sleep. I have this same dread in the city. Sometimes I figure to myself that an assassin is concealed under the bed, and the least noise awakens me with fright, so that I never would consent to sleep in a house alone. I always have present to my imagination the objects, persons and even the places of which I hear mention. If I am told of the death of some one, I immediately see it all; I see the coffin placed in the hearse, and lowered into the grave. Often indeed I see myself dead, and assist at my own funeral. Would you believe that for ten years, I have never gone to bed without thinking of death; frequently I have been sure of dying in the night."

The following case shows how the delirious ideas of the monomaniac may change, not only by some modification in the nature of his ruling passion, but by some trifling incident, the passion remaining the same.

"A man with a somewhat extended knowledge of anatomy and physiology, pretended for some years that his brain was the seat of a hyperæmia, for whose relief he thought a very active and heroic treatment was needed. He dieted most rigorously, bathed frequently and employed blood-letting. These hypochondriacal ideas so disturbed his peace of mind, that he constantly changed his place of abode, to escape the dangers his health constantly encountered. In the hope of quieting this restlessness, his father told him that this frequent change of residence had attracted the attention of the police. From that time thoughts of the police took possession of him. He dares not remain anywhere, for fear of arrest, he believes himself constantly watched, and uses all his efforts to escape the detectives." To the fear of being sick, has succeeded that of being arrested. The monomania remains the same; the form of the idea alone has changed; and the new idea has only been adopted because it accords perfectly with the ruling sentiment of fear and suspicion.

When the intellectual monomania comes on slowly it begins in general with some *fixed idea.* Given an individual, weak and nervous; endowed with an acute sensibility, and some day a word, an emotion, a fright, a joy may leave a profound impression. The thoughts arising in this manner lay hold on the mind, besiege it, and control its conceptions. For a time the individual may fully appreciate the absurdity, foolishness, or criminality of the idea; he seeks to overcome it; fights against it, and remains months and even years in a state of moral anguish; while his free will is not entirely gone, so far as his acts are concerned; at least, if his thoughts and conduct are influenced there is not clear delirium. In such cases it is difficult for the observer to define, and easy for the individual to pass, the limit between reason and insanity.

Van Swieten narrates a curious instance of this fixed idea. "A man having heard that many persons bitten by a mad dog were in turn attacked with hydrophobia in spite of copious blood-letting, conceived the idea, that if the surgeons used the same lancet in other cases, they in turn would become inoculated with the virus, and then communicate the poison to

others. To save himself from so great a misfortune he resolved in future never to allow any one to touch him, and in spite of his love for his wife and children, he did not even except them."

Taking for granted this fixed idea as being absolutely true, it serves as a point of departure; a point on which all the ideas and actions depend; and the mind follows out its conclusions even to delirium. The actions, too, are not slow to conform to the diseased conceptions, they also become extravagant and absurd. Limited at first to one idea, or train of ideas, the insanity grows step by step, occupying each day new ground, and finishing by encroaching upon all the thoughts and acts.

Such is the mode of development of the monomanias. If the partial delirium is once organized and arranged, it holds on with an immovable tenacity; the patient interprets every word and action, even the most trifling, in the light of his false beliefs. If we try to argue with him, to convince him of his error, it is in vain that we bring the clearest proofs. He argues, resists, and entrenches himself behind his convictions with an unshaken obstinacy. If we do make him confess that his enemies are imaginary, that the one he suspects is really his friend, that the invention claiming his attention is impracticable, we perhaps think him cured, as we receive his most solemn avowals, but an hour afterward the same doubts, beliefs, and convictions reappear. Far from curing these monomaniacs, such discussions only excite them, make them seek new arguments to strengthen their position, and settle them more firmly than ever in their error. It is only with the convalescents who begin to doubt and hesitate that argument can be of any use.

The following case is of especial interest, as it is such as you are liable to meet any day in general practice; it was reported by Dr. Despine in his work *De la Folie.*

"M. X., merchant, aged 35, sanguine and bilious temperament, presented himself in my office, and said, 'Doctor, I have a very singular disorder. At times I am possessed by extraordinary ideas for which I cannot account. I have a child

eight years old whom I love dearly, and yet at times I detest it. I also experience the same disgust toward my wife. If any one contradicts or even speaks to me, it puts me in a rage, and I break out against my father-in-law and my mother-in-law who are most excellent people. These thoughts, after lasting a few days will suddenly disappear. Then I experience the most vivid chagrin for what has passed, and ask pardon for the insults and abuse that I have offered.

"'Moreover I have during the past few years persistently solicited my sister-in-law, and afterwards when my lustful thoughts have left me, I would deplore my conduct and express my sincere regret. I cannot account for this passion, for my wife is far preferable to her sister. Also it has many times happened that I would become enamored of old women, ugly and disgusting. I would constantly think about them and they would seem to be the handsomest women in the world. In the intervals when I recovered my senses, I recognized the absurdity of such behavior, and, wishing to cure myself at any price, I thought the most successful way would be to seek out and enjoy the society of the most beautiful of the demi-monde, and I spared no expense; but in the company of those women I was as cold as ice, and they inspired me only with disgust.

"'When my evil thoughts were present they would pursue me even in my dreams, in which I would talk out loud, so that my wife learned what I was doing, and experienced great grief and distress of mind. In fact I do not know but what it is insanity. Still I have an excellent memory. I do a business of $100,000 per year, and keep my own books; and I make no mistakes in business, even when most fully under the influence of my worst thoughts. My affairs are prosperous, and although I am making money I am one of the most unfortunate of men.'

"His physical condition showed that he was subject to obstinate constipation, and when his dark thoughts came on he had pain in his head, an indefinable but painful sensation in the chest, a load at the epigastrium, and a stricture at the throat. Under the influence of repeated laxatives and a tem-

perate diet, together with frequent and prolonged baths, these physical disturbances were corrected, and for the past two years his normal mental phenomena have not made their appearance."

Dr. Despine also relates the following curious case of affective monomania: "At the hospital at Jenno, in Italy, there was an epileptic, æt. 47, who, after having had several maniacal attacks, was seized with a violent passion and desire for eating human flesh. One day he tore with his teeth the whole cheek of a child. Escaping from the asylum he went to his own home, and found his little girl, æt. 2, asleep. He threw himself upon her, and devoured the buttocks, the chest and thighs, and the unfortunate child lingered two days. Next the epileptic attacked his wife, who resisted with all her strength. Then the man laid hold of a child, æt. 5, which his wife had in her arms, but after a hard struggle the child was saved. The epileptic was seized, bound and carried to prison, and thence back to the asylum."

The symptomatology of monomania varies greatly according to the extent to which the mind is under the control of the delirious ideas. Some persons filled with dread of being poisoned, with scruples of a religious nature, and fear of imaginary enemies, can, in the presence of strangers, conceal their false conceptions and mingle in the world, which notices in them only eccentric and original ways, without suspecting the strange ideas which serve as motives to their peculiarities. When closely watched and questioned, these persons will avow and discuss their false ideas, and then give full rein to their delirium; but conversing on different matters, they reason with judgment, and often seem to have perfect intellectual soundness.

With others the symptoms are more marked; the periods of quiet alternate with paroxysms coming on under the influence of some strong emotions, exposure to heat or cold, menstruation, and even without any appreciable cause. During these paroxysms the delirium extends itself, becomes general, and loses its character as a partial delirium; this phase of the malady together with its essentially progressive character, has

been much insisted upon by those writers who deny the existence of monomania; but they neglect to note that this state of things is only transient; that during the periods of remission, these accessory delirious ideas disappear to leave clear and distinct the conceptions and delusions which first gave the malady its distinctive stamp; it is like a river which at times may overflow its banks but always finishes by returning to its own bed and course.

These periods of excitement in monomania are not as a rule dangerous, and only require quieting measures and an increased watchfulness. They may however assume a more grave aspect, and offer all the signs of acute mania; and at times it happens that new delusions developed during this paroxysm of delirium may remain after the paroxysm has ceased; the monomania then becomes more extensive and also presents a more unfavorable prognosis.

Some have thought that this general delirium which at times springs up in cases of monomania, may exercise a favorable influence upon the latter; that the delirium having inflicted such a general shock and overturning to the intellectual powers, will, in its departure, bear with it the previous isolated delusions. With this view some physicians have sought to produce such a state of things, but seldom with the success desired.

In general terms the prognosis of monomania is more unfavorable than that of either mania or melancholia, and this is a little surprising, for it would seem that a delirium affecting only parts of the intellect, would be more favorable than one invading the whole; when, however, the monomania is recent, of slight extent, and has not yet had time to affect our actions; when it has arisen suddenly, and is not the result of a train of thought extending over months, it is curable; the cure, however, takes place slowly and gradually; and as in other forms of insanity the patient may have a relapse.

When the monomania is not curable, it is prolonged indefinitely, with alternate periods of calm and excitement; the ideas preserve with varying shades, the same character as at the beginning of the malady, though at length they lose some

of their activity. They become less numerous, less fruitful and consistent; the patient speaks of nothing new, he employs the same terms and moves in the same routine; as Falret says, "his delirium has become stereotyped." There is already a degree of intellectual weakening. As to dementia proper it supervenes only after a long time and is never complete. We may see patients of twenty years standing who preserve a remarkable vigor of mind, as if the constant exercise of a certain portion of the brain faculties had retarded any weakening of the intelligence.

How are we to distinguish monomania from mania and from melancholia? In mania there is a general state of excitement, manifested not only by a general incoherent delirium, but also by an overactivity of all the organic functions. Melancholia is characterized by an entirely opposite condition of things; by a depression and mental stupor affecting the whole system. Every motion, gesture, and word of the patient, speaks of these two conditions, exhilaration or depression. In monomania the case is different, the patient is neither excited or depressed, he apparently lives like the rest of the world; preserves a normal degree of activity, and seldom betrays by his looks any of his false beliefs. A man may have a fixed idea of a melancholy nature, for example, that he is ruined. If, holding this false belief, he shapes all his actions in accord therewith, he may yet go and come, and transact his business as usual, but he is a victim of monomania. If, again, this false idea extends itself, affects the whole intellect, and leads to depression, inactivity and stupor, we have a case of melancholia.

This is the diagnostic sign which first attracts the attention of the observer. On more closely examining the patient, we learn that his delirium, beyond certain well defined limits, does not impede his intellectual workings. He is neither incoherent like the maniac, whose ideas are numerous, rapid and uncertain; nor confused like the melancholic, who restricts himself to monotonous, vague and burdensome thoughts. Far from this, the delirious ideas in monomania are logical and perfectly systematic in their arrangement; everything is order-

ly and coherent, and we soon see that there is no general disturbance exalting or obscuring our mental operations.

The question of diagnosis being settled in a given case, we have next to inquire as to the extent or limit of this delirium; and here we must be on our guard against the deceptive results of a careless examination. One patient will talk only of himself and his troubles; another, especially when hallucinations are present, holds himself aloof from the physician, conceals his delusions, and only allows them to escape him by accident or from skilful cross questioning. Such patients have set phrases which do not deceive the skilled alienist. Their accusations are vague and always of one kind. They are tormented, persecuted, followed. A phrase of this sort will soon open the way for you to lay bare the whole extent of the delusions.

A full enumeration of the various intellectual monomanias would be impossible; they are so numerous and varied that we meet with no two cases exactly alike. The delirious conceptions bear as a rule the imprint of the surroundings in which the patient has lived, and the manners and customs of society. In olden times they believed themselves persecuted with the wrath of the gods; in the middle ages the belief in sorcery, witchcraft, and diabolical possession gave to their delusions a character of their own. In our day, the new forms of government, the watchfulness exercised over all citizens; the new and wonderful discoveries in physics and chemistry have given rise to the belief in persecution by the police and detectives, and that one is a victim to the mysterious tortures of electricity and magnetism.

In the lectures upon Epileptic and Moral Insanity your attention will be called to those cases of monomania characterized by homicidal impulses, and in our next lecture we will consider those varieties called respectively Pyromania, Suicidal Mania, and Kleptomania.

Time does not permit us to give a detailed study to each of the many varieties of monomania to which special names have been given.

LECTURE XII.

Pyromania, Suicidal Mania, Kleptomania.

Pyromania.

Pyromania or the monomania for burning, consists in an instinctive desire, or an irresistible impulse to commit arson, to set something on fire. But you will please bear in mind that it is to set fire without any adequate motive, and not for purposes of revenge. We must here draw a clear line of distinction between those suffering from pyromania, and those maniacs or imbeciles, who, to satisfy their vengeance, or procure means of escape, will set fire to the house of a neighbor, or even to the asylum in which they dwell. The true pyromaniac obeys an impulse, a command; he burns the house of his friend and neighbor, and even his own, as readily as that of an enemy. Maniacs and the demented; imbeciles and idiots only set fire incidentally or at the instigation of others.

Pyromania, like the other forms of insanity, springs from various causes, such as age, sex, approach of puberty, the influence of heredity, difficult menstruation, nostalgia, etc.

As I think that a well told typical case will give you a better idea of pyromania than any description of my own, I will translate a case given by *Le Grand Du Saulle* in his work entitled, "La Folie devant les Tribunaux," p. 463.

"Mary Anne B., aged 40, laundress, is a robust woman, with reddish hair and complexion. Of a nervous sanguine temperament, she has always enjoyed excellent health except that the menstrual flow has been scanty. Mary has usually been bled twice a year; if she neglected this precaution she has headache, ringing in the ears, and flashes of light before the eyes. Her father was an epileptic and her mother was called *strange* and *original*. Mary has been married for six years to an excellent man of steady habits.

"In the year 1850, many fires occurred within a short time

in the village where Mary lived, and among others her house was burned. The suspicions of the authorities being aroused by some peculiarities of conduct, Mary was arrested. The judge examining her was surprised by her calm impassibility, her serenity of mind, and especially by her great frankness. She would have been severely dealt with, had not the magistrate in the midst of her avowals, perceived symptoms of hallucination. Desirous of further information as to her mental condition, he called in the aid of a medical expert, who decided, after a careful examination, that she ought to be sent to an asylum for detention and further observation. On her arrival at the asylum she showed no signs of excitement or depression of mind; answered rationally all the questions asked, asked for some work to do; and ate and slept well. A few days after her admission, Dr. Du Saulle had a long interview with her, the substance of which is as follows:

Q.—Do you know where you are?

A.—Yes, at the Petit Maison.

Q.—Why are you here?

A.—Probably because I set fires in my village; but what of that? I was almost forced to it, and beside it pleased me so much.

Q.—What forced you to it?

A.—Reasons which concern me alone.

Q.—What were these reasons?

A.—First, my own gratification.

Q.—What gratification would you feel in setting a fire?

A.—I should get rid of my shadow. (*Cauchemar.*)

Q.—What do you mean by your shadow?

A.—My shadow is a kind of phantom, a black spectre, a black shade, which I often see to my right or left; in front or behind; it follows me, torments me, and lays hold on my nerves.

Q.—Does your shadow talk?

A.—Usually not, but one day it insulted me, but I rebuked it so effectually that it has not opened its mouth since.

Q.—Is it to rid yourself of your shadow that you set fires?

A.—Yes; because it goes away as soon as I approach a fire,

or go near a stove, in my laundry, or when I wash clothes by the river side in the hot sun.

Q.—For how long a time has this shadow followed you?

A.—Ever since the house of father F. was struck by lightning and burned. It was at night; I heard the noise, arose, saw the flames and was terribly frightened; in a short time that feeling passed away, and as soon as the fire was out, I wished to see it again.

Q.—Had you your courses at the time?

A.—Yes, they had commenced the evening before, but were suddenly stopped, and did not re-appear until thirty-nine days afterwards.

Q.—How soon after the fire did you notice the appearance of this shadow?

A.—I think it was the next day. The black mass frightened me. I would have given the world to get rid of it, but no matter where I went, that shadow followed me. All at once I noticed that a fire made it disappear.

Q.—Before remarking this, had you not already made up your mind to set fire?

A.—Yes and no; a multitude of thoughts were in my head; I cannot explain to you how I felt; but perhaps I might have thought of setting fires.

Q.—Then you persisted more decidedly in your incipient resolution, when you discovered that fire caused your shadow to disappear?

A.—Yes, certainly.

Q.—When did you set a fire for the first time?

A.—Fifteen days after the burning of Father F.'s house. I could not control myself. I went to the house of Mrs. D. in her absence, and I lit a fire under a chair, near her bed. I then went home and was very uneasy until I learned from the neighbors, and the noises outdoor, that Mrs. D.'s house was on fire. Then I felt as if cured. I went into her chamber which was transformed into a vast furnace, and saved many of the articles of furniture belonging to poor Mrs. D. I then went into the street for some fresh air, as I felt stifled.

Q.—At that moment did you feel no remorse of conscience?

A.—No, but I was not perfectly at my ease, and I think that if any one had spoken to me, I could not have answered. I should have been as one drunk.

Q.—Had you any motive for choosing Mrs. D.?

A.—It happened to her as to any one; I had no spite against her, no particular choice.

Q.—Did any one in the village suspect you of being the author of these fires?

A.—That may have been the case, the world is so corrupt.

Q.—Did you not set fire to your own house?

A.—Yes, and lost everything.

(Here Mary appeared to be much moved, and wept for some moments.)

Q.—What reasons impelled you to burn your house?

A.—It was, I hardly know what, a necessity, a craving to see a fire; a fire is so beautiful. I was in ecstasy when I saw the flames flashing out from the old roofs of thatch. It was so beautiful that even the good God could not be more so!

(Here she threw herself suddenly upon her knees and raised her eyes to heaven.)

Q.—And your shadow, what became of it?

A.—It was scorched, melted down, burned to ashes, and spread all around the odors of roasted meat.

Q.—Have you sometimes thought of the state of poverty into which your husband was thrown by the burning of your house and furniture?

A.—Yes, and in a whisper I called myself huzzy. It was certainly very wrong; I did wrong toward my husband who is a good man, and whom I love, and besides, I had the foolishness to burn all my effects.

Q.—Did you not save the most valuable of your things?

A.—I forgot everything and all were lost.

Q.—Was your house insured?

A.—It seems that it was.

Q.—Did you expect that the insurance company would pay you enough to make up for your loss on the furniture and house?

A.—I never troubled myself about it at all; my husband

arranged it in some way; but it seems that we were insured. I did not look so far ahead as that.

Q.—Was your furniture insured?

A.—I do not know, and I do not know whether furniture can be insured like a house.

Q.—Where did you go after your house was burned?

A.—To my sister-in-law.

Q.—And your husband?

A.—I believe he went somewhere in the village. I have not seen him since, poor man.

Q.—While your sister-in-law received you so hospitably did you not try to set fire to her house?

A.—Yes, twice; but it did not burn.

Q.—Did you expect to escape detection always?

A.—I have never reflected about the results of my conduct; they might put me in prison, condemn me, or put me to death; I know it well enough; but my blood would lie upon the heads of my executioners, for such as you see me, I am not wicked.

Q.—Do you fulfil with zeal your religious duties?

A.—Yes, but I no longer dared go to confession, for I would have been obliged to tell everything to the priest, and he might not have understood my reasons; he probably would have repulsed me as a wicked woman; me, who am innocent of evil. I am like the men who are drunk, they keep calling for liquor, and when I have once seen a fire it gives me a desire to burn everything. They have put me in this asylum, but I am no more crazy than you are. To put me in an asylum! me, who was so happy and free from cares before all this; but God is more powerful than you, and he will deliver me. This person who showed much intelligence in her examination quickly recovered, but having a relapse some time after, committed suicide.

The monomania for burning is produced by such varied causes, and presents itself under circumstances so dissimilar, that it is convenient to consider it under the heads of complete and incomplete pyromania.

As was said before, it is not rare to meet with different in-

sane patients who attempt to set fire to the asylum in which they dwell, prompted by different motives, but generally perhaps by the hope of escaping in the confusion; such cases are familiar to the officers of every asylum, and Esquirol relates some interesting cases in his classic work.

A young man while taking a trip on horseback during the hot months, had his head affected so as to become slightly delirious, when the bystanders approached he thought that he had fallen into the hands of robbers; he set fire to the house where he had been hospitably received, in order to escape from what he thought to be a den of robbers.

Schlegel relates the case of a woman affected by religious melancholy who attempted suicide by setting fire to her bed. She had shown no disturbance of the intellect except religious exaltation and a disgust of life.

Sometimes we find that intense home-sickness, or an impassioned condition will lead children, and persons of rather feeble intellect to set fire, and such cases come under the head of incomplete pyromania; as a rule they do not feel the *irresistible impulse*. It generally occurs with young children, or children in servitude who strongly desire to go to their own homes, being harshly treated by their masters. This nostalgia produces in them a state of sadness akin to melancholia, accompanied by feelings of anxiety, tears, loss of sleep and of flesh.

A young boy aged fourteen, having been punished, set fire to his master's house, that he might return to his parents.

A girl fifteen years old, while suffering from home-sickness, or nostalgia, made two incendiary attempts in order that she might be able to leave the service of her employers. She stated that from the moment she entered their service she was unceasingly beset by the desire of burning buildings. It seemed as if a shade that was constantly before her impelled her to acts of incendiarism. It appeared that she had long suffered violent pains in her head, and had never menstruated.

A young girl, æt. 12, had her intellect somewhat weakened by a brain fever, and soon afterwards took service with a farmer near London. While there she set fire to a bed, and

then went and told the family what she had done, and the fire was quickly stopped. This child made the following answers to the magistrate examining her: "I did not intend any harm, I only wanted to see if I brought a lighted candle near the bed curtain it would set it afire. I was curious to see the flame, for I thought it would be finer than a coal fire, or the wood fire in the fire-place. I had no hatred toward my master, I was well treated by him; I did not think it was wrong to burn a poor, miserable bed, when he is rich enough to buy another. I did not reflect that I was committing a crime in setting fire to the property of another; I only wanted to see a bonfire; if I had know that I should be hanged for making a bonfire, I should not have made it."

A young wheelwright's apprentice, æt. 18, living in the country, set sixteen fires in the space of four months. He always carried with him a sponge and thread covered with sulphur, and though he would steal to procure means to satisfy his appetite and pleasures, he never robbed the houses that he fired. He had no revengeful motives, but when the flames burst out, he felt happy; this joy was increased by the sound of the bells, the lamentations, the cries and despair of the people; so much so that as soon as the bells began to ring he was forced to quit work, his mind and his body were so excited.

Incomplete pyromania, caused by nostalgia, development of puberty, menstrual irregularities, etc., may sometimes be complicated with kleptomania, or a desire to steal; the following is a typical case:

"Catharine Lambert, æt. $15\frac{1}{2}$, with menstrual irregularities, went from the country to Paris with her aunt, who was a servant. Catharine has always been good-tempered, affectionate and obedient to her parents. A few weeks after arriving in Paris, her aunt frequently remarked that she had lost her cheerfulness, and would weep without giving any reasons. One day she came into the house all in tears, saying that she had seen some one of her village friends riding by, and had not been able to speak to her. She spent the day in tears. Soon after her arrival many articles were missed from the

house, in spite of a most constant watch. One evening, after the family had gone out, Catharine remained shut up in her room for awhile, then went out in her turn, and soon returned; but in a few moments she came down and asked the porter to help her open the door, as some one had been tampering with the lock. The porter went upstairs, opened the door, and entering found the room filled with smoke, which came from a closet filled with clothes and linen; the chairs and furniture were all in confusion, and clothing was strewn all over the floor. A woman's bonnet was found in a pail of water in the kitchen; and in the cistern were found many of the things that had disappeared, and among them some articles of jewelry. On examining a secretary containing gold and bank notes, it was found that they had not been disturbed. Catharine at once confessed that she was the author of all this mischief."

Complete pyromania includes all acts of incendiarism due to an irresistible impulse to set fires, to an impairment of the will power, or to delirious conceptions with hallucination. The case of Mary B. which I related at length is an example of this sort. Gall reports the case of Maria Franc who was executed for house burning. "She was a peasant of little education, and, in consequence of an unhappy marriage, had abandoned herself to habits of intemperance. In this state a fire occurred in which she had no share. From the moment she witnessed this fearful sight, she felt a desire to fire houses, which, whenever she had drunk a few copper's worth of spirits, was converted into an irresistible impulse. She could give no other reason, nor show any other motive for firing so many houses, than this impulse which drove her to it. Notwithstanding the fear, the terror and the repentance she felt in every instance, she went and did it afresh. In other respects her mind seemed sane. Within five years she fired twelve houses, and was executed on the thirteenth attempt."

A peasant girl, named Kalinovska, seventeen years of age, while returning from a dance, where she had got quite heated, was suddenly seized with a desire to burn a building. She struggled with the desire for three days, when she yielded, and

she declared that on seeing the flames burst out she experienced a joy such as she had never felt before.

Unlike the other criminal monomanias, pyromania is due, not to a rarely curable and profound cerebral disturbance, but to a transient, though active, neuropathic condition. This condition is usually found in persons between the ages of ten and twenty-five years. Sometimes it exists alone, sometimes in complications with other disturbances of the nervous system, such as those which induce hysteria and epilepsy.

This neuropathic condition can be produced by a kind of moral contagion in very impressionable persons. Reading detailed and graphic accounts of fires, or witnessing them, can cause this impulse. We find, too, that those who are subject to this neurosis have a very excitable, susceptible brain and are apt to be noted for their violence and strangeness of character. Oftentimes they are peculiar and malicious,—perhaps hysterical and epileptic,—or even said by their neighbors to be a little odd and lacking in sound sense.

Some who commit arson under the influence of this morbid influence do not manifest any signs of excitement whatever,—they will commit the act calmly and tranquilly. There is no *excitement* of mind, because the passion or impulse felt is powerful enough at any given moment to stifle all the opposing moral sentiments which might arise. This is shown by the pleasure and joy felt by such persons on seeing the flames burst forth, and the absence of regret and remorse before and during the act. The general distress does not affect them; they neither call for aid nor seek to arrest the flames; but the sight of the glowing flames gives them joy and rapture. As a rule they do not experience any remorse after the deed, except as they may pretend repentance from fear of punishment; in some cases, however, the sight of the flames does awaken thoughts of the harm done, and they experience real regret, not that they have done wrong, but that they have unavoidably caused suffering and injury to others.

Dr. Ray says, in his *Medical Jurisprudence of Insanity*, "that the evolution of the sexual functions is very often attended by more or less constitutional disturbance, especially in the female

sex, is now a well-established physiological truth. The shock seems to be felt chiefly by the nervous system, which experiences almost every form of irritation, varying in severity from the slightest hysteric symptoms to tetanus, St. Vitus'-dance and epilepsy. And when we bear in mind also, that general mania is sometimes produced by this great physiological change, it cannot be deemed an extraordinary fact that partial mania, exciting to acts of incendiarism or murder should be one of its effects. Still we would not be understood as favoring the opinion that every youth between the age of twelve and fifteen, guilty of incendiarism, is a subject of pyromania. The general principle of the power in question to produce this disorder is not alone sufficient. It is necessary to trace the connection between them in the particular case; and unless this can be done, we have no right to claim the benefit of the general truth." To aid us in such inquiry we may avail ourselves of the guiding principles laid down by Marc, in his memoir upon this subject. 1st. To prove the existence of pyromania, produced by the sexual evolution, the age should correspond with that of puberty, which is between twelve and fifteen. Sometimes, however, it may occur, especially in females, as early as the tenth or eleventh year, and, therefore, if the symptoms are well marked, we have a right to attribute them to this cause.

2. There should be present symptoms of irregular development; of marked critical movements, by means of which nature seeks to complete the evolution. These general signs are, either a rapid increase of stature, or a less growth and sexual development than is common at the age of the individual; an unusual lassitude and sense of weight and pain in the limbs; glandular swellings; cutaneous eruptions, etc.

3. If, within a short time of the incendiary act, there are symptoms of development in the sexual organs, such as efforts of menstruation in girls, they deserve the greatest attention. They will strongly confirm the conclusion that might be drawn from the other symptoms, that the work of evolution disturbed the functions of the brain. Any irregularity whatever of the menstrual discharge is a fact of the greatest im-

portance in determining the mental condition of incendiary girls.

4. Symptoms of disturbance in the circulatory system, such as irregularity of the pulse, determination of blood to the head, pains in the head, vertigo, stupor, a sense of oppression and distress in the chest, are indicative in young subjects of an arrest or disturbance of the development of the sexual functions, and therefore require attention.

5. For the same reason, symptoms of disturbance in the nervous system, such as trembling, involuntary motions of the muscles, spasms, and convulsions of every kind, even to epilepsy, are no less worthy of attention.

6. Even in the absence of all other symptoms, derangement of the intellectual or moral powers would be strong proof, in these cases, of the existence of pyromania. Of the two, the latter is far the more common, and is indicated by a change in the moral character. The patient is sometimes irascible, quarrelsome; at others, sad, silent, and weeping without the slightest motive. He seems to be buried in a profound revery, and suddenly starts up in a fright, cries out in his sleep, etc. These symptoms may have disappeared and reappeared, or degenerated at last into intellectual mania.

7. The absence of positive symptoms of mental disorder, as well as the presence of those which appear to show that the reason is sound, is not incompatible with the loss of mental liberty. The words of Marc, on this point, should be quoted in full: "Even when, previously to the incendiary act, they have shown no evident trace of mental alienation, and been capable of attending to their customary duties; when on their examinations, they have answered pertinently to questions addressed to them; when they have avowed that they were influenced by a desire of revenge, we cannot conclude with certainty, that they were in possession of all their moral liberty, and that, consequently, they should incur the full penalty of the crime. These unfortunates may be governed by a single fixed idea, not discovered till after the execution of the criminal act. Pyromania resulting from a pathological cause may increase in severity, as this cause itself is aggravated and

suddenly may be converted into an irresistible propensity, immediately followed by its gratification."

Commenting upon the above, Dr. Ray, remarks: "If the above considerations are carefully pondered by the medical jurist, he will be in little danger of mistake, in determining the question whether or not the incendiary act is excited by a pathological condition of the nervous system, incident to the evolution of the sexual functions. If it be decided in the affirmative, the acquittal of the accused should follow as a matter of course, though it might not square with the technical definitions of insanity, and the usual subtleties respecting moral liberty and the freedom of the will. In the north of Germany, where pyromania in young subjects is remarkably frequent, the court is generally governed by the opinions of the medical experts, and thus the accused escapes the ignominious fate which is almost inevitable wherever the spirit of the English common law prevails."

Suicidal Mania.

There is a strong, though unfounded, conviction in the average mind that suicide is always the result of insanity, but, as Bucknill says, the act of self-destruction may originate in different, and even opposite conditions of the mind.

In Wharton and Stillé's *Medical Jurisprudence* it is held that the propensity to self-destruction may co-exist with sanity; that we are not warranted in coming to the conclusion that suicide is always the symptoms or result of insanity; that there is no insanity present when the feeling of disgust with life is in exact relation with the circumstances; when evident moral causes exist which sufficiently account for the act; that when a man of delicate feeling puts an end to his existence, that he may not survive the loss of his honor or of some highly valued possession which forms an intimate part of his intellectual being, and when a man prefers death to a miserable, contemptible life, full of mental and physical ills, although morality may, indeed, call him to account for the deed, yet there exists no ground for us to consider him necessarily insane.

The insane man may attempt self-destruction under several different conditions.

1st. He may be under the influence of a violent attack of mania, which leads him equally to kill himself or others.

2nd. Suicide may be attempted under the influence of a delirious idea; from delusions, hallucinations, etc. He may throw himself from a window in obedience to some fancied supernatural command, and in the belief that he will be held suspended in the air. A man believes that he can only gain admittance into heaven by self-immolation; another distinctly hears a voice commanding him to destroy himself; while another sees a form which leads him on to the brink of a river or a precipice.

3d. Suicide may result from melancholia. The sad, fearful and depressing emotions in this form of insanity may give rise to a profound distaste for life; or there may be a condition of mental misery from which the person seeks to escape; and this morbid condition of the emotions brings about an impassioned state in which the moral sentiments are stifled and rendered nugatory.

4th. There are cases in which the instinct of self-preservation is diseased, being as it were reversed in its operation. There is here a blind, unreasoning, irresistible impulse to commit suicide,—a true suicidal monomania. Here the person is led to commit suicide from the sole desire to die, without being prompted by any other motive, such as fear, anguish or distress of mind. This passionate desire governs his whole being, and no other thought or desire can change it. This complete absence of any opposing emotion, this absence of any moral conflict, explains why such suicides may occur with an appearance of calmness and deliberation.

This last form alone deserves the name of suicidal monomania; and Dr. Bucknill says: "Several well-marked examples have come under our observation, and we have recently been informed of a case in which the patient was attacked by a strong impulse to commit suicide, and, at his own urgent request, was confined in a lunatic asylum, where he has not manifested the slightest aberration of intellect. Two or three

years previously, he was injured by lightning; shortly after which he was decidedly insane, but recovered."

M. Debreyne has recorded the following: The patient who was opulent, stated that he was perfectly happy, and free from any cause of suffering, with the exception of one circumstance that tormented him. This was the desire, thought, or violent temptation, to cut his throat whenever he shaved himself. He felt as if he should derive, from the commission of the act, *indescribable pleasure*, and he was often obliged to throw the razor away.

The following case of attempted suicide is of special interest, since we can learn the thoughts which passed in the man's mind during the whole attack. It is translated from Prosper Despine's work, "De la Folie," p. 340:

Mr. X., merchant, intelligent and industrious, having a large family, which he had carefully brought up, lost large sums in his operations at the stock exchange. Naturally lively, he did not seem depressed by his losses.

Some time after this he left his house at eight o'clock one morning, agreeing to meet his wife and daughter at nine, to make some purchases. At quarter after nine, while awaiting them at his office door, he was suddenly and without motive seized with a sudden and intense disgust for life, which entirely possessed his mind. Said he to himself: "It is very foolish to be always at work and take so much trouble, it is better to end it at once." "When this fit of disgust seized me," he told me later, "*no sentiment arose to oppose it.* I was so wrapped up in the idea of suicide, that if any one had proposed some business affair in which I could have made one hundred thousand francs, I should have refused it, in order to follow my new thought. No sooner had this idea laid hold upon me, than I started to put it in execution. While going home, I saw, in the distance, my wife and daughter going to the rendezvous. At sight of them, the only thought coming to my mind was how to avoid them that I might not be prevented or delayed in carrying out my design. Arrived at home I shut myself up in my chamber and wrote a letter to my eldest son, telling him what I was about to do, and then

made some additional testamentary dispositions of property. Then taking two bottles, one containing sulphuric acid and the other laudanum, I mixed them in a glass, thinking the two would act more surely than one, and I swallowed the mixture without a single fear or regret." Upon the doctors arrival, they found him suffering torments and vomiting copiously, but the two poisons had partly diluted each other, and some coffee and milk taken at breakfast had acted somewhat as an antidote, so that his stomach had emptied itself after repeated vomitings. After months of suffering he entirely recovered his physical and mental health. "After having swallowed the poison," said he, "I only came to myself after the frightful sufferings and the sight of my children. Then I asked myself how it was ever possible for me to commit such a crime. At that moment I would have given all I had in the world to undo the deed. You may be sure that man is sometimes exposed to irresistible impulses which would seem incredible to me had I not felt them." This word irresistible, however, was wrongly used, says Despine, since he avowed that there was no struggle whatever in his conscience, and no conflict between a desire to do right and a desire to do wrong. He was asked whether, in case the thought of killing his wife or his children had come into his mind in the same way, he would have committed the crime, he answered: "*I have no doubt of it, for everything impelled me to it, and nothing restrained me.*" In such a case as this it is not the *violence* of the passion that produces the result, but it is the absence of all rational instinctive opposition.

The following case is reported by Prof. Maudsley: "A married lady, aged thirty-one, who had only one child a few months old, was for months afflicted with a strong and persistent suicidal impulse, without any delusion or any disorder of the intellect. After some weeks of zealous attention and anxious care from her relatives, who were all most unwilling to send her from among them, it was found absolutely necessary to send her to an asylum; so frequent were her suicidal attempts, so cunningly devised, and so determined. On admission she was very wretched because of her frightful impulse, and often

wept bitterly, deploring the great grief and trouble which she caused to her friends. She was quite rational, even in her great horror and reprobation of the morbid propensity; and all the fault that could possibly be found with her intellect was, that it was enlisted in the service of her morbid impulse. She had as complete a knowledge of the character of her insane acts as any indifferent bystander could have, but she was completely powerless to resist them. Nevertheless her attempts at suicide were unceasing. At times she would seem quite cheerful, so as to throw her attendants off their guard, and then would make with quick and sudden energy a precontrived attempt. On one occasion she secretly tore her night-dress into strips while in bed, though an attendant was close by, and was detected in the attempt to strangle herself with them. For some time she endeavored to starve herself by refusing all food, and it was necessary to feed her with the stomach-pump. The anxiety which she caused was almost intolerable, but no one could grieve more over her miserable state than she did herself. Sometimes she would become cheerful and seem quite well for a day or two, but would then relapse into as bad a state as ever. After she had been in the asylum for four months, she appeared to be undergoing a slow and steady improvement, and it was generally thought, as it was devoutly hoped, that one had seen the last of her attempts at self-destruction. Watchfulness was somewhat relaxed, when one night she suddenly slipped out of a door which had carelessly been left unlocked, climbed a high garden wall with surprising agility, and ran off to a reservoir of water, into which she threw herself headlong. She was got out before life was quite extinct, and after this all but successful attempt she never made another, but gradually regained her cheerfulness and her love of life. Her family was saturated with insanity.

It is notable how strongly hereditary this suicidal insanity often is, and how desperate are its manifestations under such circumstances, even when there are no other signs of mental disease.

Kleptomania.

We not unfrequently meet with cases of insanity marked by an irresistible propensity to steal, accompanied or not by intellectual disturbance.

"There are persons," says Dr. Rush, "who are moral to the highest degree as to certain duties, but who, nevertheless, live under the influence of some one vice. In one instance, a woman was exemplary in her obedience to every command of the moral law, except one,—she could not refrain from stealing. What made this vice more remarkable was, that she was in easy circumstances, and not addicted to extravagance in anything. Such was the propensity to this vice, that when she could lay her hands on nothing more valuable, she would often at the table of a friend fill her pockets secretly with bread. She both confessed and lamented her crime."

Bucknill and Tuke say that: "Theft may be committed by the insane, either in consequence of certain delusions, or of some motive, as revenge, or as the result of what appears to be some instinctive impulse; lastly, the mind may be so perverted by disease, that under circumstances of powerful temptation, theft may be committed, which *would not have been the case, had the individual been free from any mental affection.* The fact of external motive does not, therefore, remove the possibility of insanity, although, doubtless, those cases which are motiveless are much more easily credited."

This condition, as Marc observes, is, doubtless, very singular and inexplicable, as are so many other of the intellectual and physical phenomena of life; but it is not the less real on that account, as is proved by numerous examples. Besides, the existence of facts of this description is now generally admitted by medical men, and even by lawyers, who have devoted any attention to mental diseases.

Dr. Ray says: "It would be difficult to prove directly that this propensity, continuing perhaps through a whole life, and in a state of apparently perfect health, is, notwithstanding, a consequence of diseased or abnormal action in the brain; but the presumptive evidence in favor of this explanation is certainly strong.

"1. It is very often observed in abnormal conformations of the head, and accompanied by an imbecile condition of the understanding. 2. This propensity to steal is not infrequently observed in undoubted mania. 3. It has been known to follow disease or injuries of the brain, and therefore to be dependent on morbid action. 4. This propensity is sometimes followed by general mania, and thus constitutes a premonitory symptom. 5. It seems sometimes to be the result of a sudden and temporary confusion of mind, like that of mania. 6. This condition may be produced by certain physiological changes in the animal economy, as, for instance, pregnancy. 7. This propensity is often the precursor of general paralysis, and where it occurs in persons whose antecedents were calculated to provoke this disease, the fact should be carefully considered in forming a diagnosis of the case."

The following account given by Dr. Julius Steinau, and quoted by Bucknill and Tuke, shows excellently well the hereditary tendency so frequently met with in monomania: "When I was a boy, there lived in my native town an old man, named P——, who was such an inveterate thief, that he went in the whole place by that name. People, speaking of him, used no other appellation but that of *the thief*, and everybody knew then who was meant. Children and common people were accustomed to call him by that name, even in his presence, as if they knew no other name belonging to him; and he bore it, to a certain degree, with a sort of good-naturedness.

"A son of this P—, named Charles, afterwards lived in B—. He was respectably married, and carried on a profitable trade, which supported him handsomely. Still, he could not help committing many robberies, quite without any necessity, and merely from an irresistible inclination. He was several times arrested and punished. The consequence was, that he lost his credit and reputation, by which he was at last actually ruined.

"A son of this Charles, in my native town, lived in the same house where I resided. In his early youth, before he was able to distinguish between good and evil, the disposition to

stealing, and the ingenuity of an expert thief, began already to develop themselves in him. *When about three years old*, he stole all kinds of eatables within his reach; although he always had plenty to eat, and only needed to ask for whatever he wished. He, therefore, was unable to eat all he had taken; nevertheless, he took it and distributed it among his play-fellows. When playing with them, some of their playthings often disappeared in a moment, and he contrived to conceal them for days, and often for weeks, with a slyness and sagacity remarkable for his age. When about five years of age, he began to steal copper coins; at the age of six years, when he began to know something of the value of money, he looked out for silver pieces, and, in his eighth year, he only contented himself with larger coins, and he proved himself to be, on public promenades, an expert pick-pocket."

A similar case is that of Madame M., a widow, in good circumstances, who was sentenced to thirteen months imprisonment, and a fine of five dollars, for stealing from one of the stores. This person alleged, in defence, that she was ill, and that she was irresistibly impelled to take the articles against her will. "I knew that I was doing wrong," said she, "but the impulse was stronger than I, and I could not control myself." An examination was made into her condition, and she was acquitted.

"This woman was of nervous sanguine temperament, and her antecedents were well marked. Her mother was eccentric, and had an irresistible craving for alcoholic liquors, from the use of which she could not be kept either by counsel of her friends, or the teachings of religion, and she finally lost her mind. An aunt became insane when twenty years old; and an uncle blew his brains out as a result of some idle brawl.

"Madame M., had convulsions in childhood, and has since that time shown great impressionability, not being able to endure the slightest opposition; and being subject to frequent unpleasant dreams and the nightmare. At puberty, menstruation was established with difficulty, and was accompanied with headache, pains in the limbs, eccentricities of character, and depraved tastes. The first menstrual period was marked

by a nervous attack, with loss of consciousness. In all other respects she was a woman of most refined tastes and exemplary character.

"November 21st, after a restless and sleepless night, she complained of headache, thirst, abdominal heat, constipation, restlessness of the limbs, and was obsessed with a desire to steal something. She rose at seven in the morning, and went to a shop where she was accustomed to trade, and saw upon the counter, amongst a pile of goods, a piece of alpaca worth about nine dollars. At first she struggled against the impulse to steal it, appreciating the wickedness of the act; the wish to possess it so ruled her as to conquer her reason, and her power of resistance. Pale and trembling, she experiences a violent pain in her head, and, yielding to the impulse, hides the goods under her shawl." – (*Dagonet*, p. 316.)

This person was led to steal, as was Glenadel and others to kill, without power to resist the impulse, although its wickedness was fully felt. Such obsession, when without any motive, can only be explained as a result of insanity, or demoniac possession, which, however, in some cases may be synonymous terms.

Friedreich gives the case of a pregnant woman who, otherwise perfectly honest and respectable, suddenly conceived a violent longing for some apples from a particular orchard, two or three miles distant. Notwithstanding the entreaties of her parents and husband not to risk her character and health, and their promises to procure the apples for her in the morning, she started off in company with her husband, at nine o'clock of a cold September night, and was detected by the owner in the act of stealing the apples. She was tried and convicted of theft, but subsequently a medical commission was appointed by the Supreme Court to examine and report upon her case. Their inquiries resulted in the opinion that she was not morally free, and consequently not legally responsible, while under the influence of those desires peculiar to pregnancy.

Dr. Isaac Ray says: "We are not prepared to go to the length of referring all the instances of this propensity thus manifested to the influence of disease, but they cannot all be attributed

to faults of education, to evil example, or to innate depravity, without doing violence to the testimony of every day's experience. It may be difficult no doubt, in many cases, to distinguish them in respect to their physical or moral origin, but the distinction is no less real on that account; the same principles are to guide us that regulate our decision in questions touching any other form of insanity; and if common sense and professional intelligence preside over our deliberations, the final judgment will not often be wrong. Where the propensity to steal is manifested in a person whose moral character has previously been irreproachable, and whose social position and pecuniary means render indulgence in this vice peculiarly degrading and unnecessary, his plea of having committed the larceny while deprived, in a measure of his moral liberty, deserves to be respectfully considered. If the object stolen is of trifling value, or incapable of being turned to any purpose of use or ornament; if the offence have been preceded by others of a similar kind; and especially if, in addition to those circumstances, the individual be a woman in a state of pregnancy, there can scarcely be a doubt that the plea should be admitted. We must not overlook the fact, however, that objects which are utterly valueless to some men are exceedingly prized by others; and it is a lamentable truth that some persons, in their eagerness to get possession of certain objects that gratify a favorite passion or taste, seem to lose sight all at once of the ordinary distinctions of *meum* and *teum*. (Ray, op. cit. p. 245.)

LECTURE XIII.

Puerperal Insanity.

During the periods of pregnancy, child-bed and lactation, women are liable to intellectual and emotional disturbances of a marked character, which in some cases amount to real insanity. While these disturbances resemble in very many respects those noticed in other forms of insanity, there are certain peculiarities which justify us in considering them apart under the name of puerperal insanity. The term implies that the mental and physical changes peculiar to the puerperal state form a marked and constant factor in such cases; and it should be stated here, that in the present lecture the word "puerperal" is not used in its narrow sense, but covers the whole period from conception to the weaning of the child; for, during the whole of this period, the woman being more nervous, and more sensitive to morbid impressions, is kept in a condition holding close relations with the reproductive functions, which thus constitute a true prolonged puerperal state.

The special character of puerperal insanity is due to the co-existence of an organic or functional change in the uterus or its appendages. If we examine into the ordinary forms of insanity, we know that in many cases it is difficult or impossible to decide upon the exciting moral or physical cause, or the accompanying changes of bodily structure. But we shall find the case otherwise in puerperal insanity.

It is a matter for surprise that so little is to be found in homœopathic literature concerning this form of mental disorder; and both Drs. Guernsey and Ludlam leave it unnoticed, at least in the earlier editions of their works, the only ones I possess. Although somewhat rare, it may occur at anytime in the practice of any physician. "It may occur during gestation, soon after labor, or not until several weeks or even months after its completion. Two periods have been noticed

as peculiarly susceptible to its invasion, the one, before the system has completely recovered from the shock of parturition; the other, during lactation. It cannot be affirmed of any woman that she is exempt from it during her child-bearing period. It is not confined to any rank of life, or to constitutional peculiarities. Those of robust frame and obtuse sensibilities are numbered among its victims; it most frequently occurs, however, in feeble, nervous, excitable women, of hysterical constitution, and especially among those of strong sexual instincts."

The insanity of puerperal women appears under the two great types of mania and melancholia, though even dementia is seen at times. Mania, however, is undoubtedly the most frequent form of mental alienation. The frequency of this form of disease is variously stated, but out of 13,748 deliveries, 26 women were affected by it *immediately after delivery;* a ratio of 1 to 528; if, however, we include the cases occurring during pregnancy and lactation, the ratio would be much larger. The statistics of the Pennsylvania Hospital for the Insane show that ten per cent. of their female patients are such from puerperal causes; and the late Sir James Y. Simpson gives the same proportion. At the State Lunatic Asylum at Utica, New York, out of 4716 insane women admitted within thirty-two years, puerperal conditions were assigned as cause in 584 cases.

Mania, when affecting puerperal and pregnant women, is one of the most curable forms of insanity, while melancholia is somewhat less so. Perhaps no other form or complication of mental disease furnishes so large a proportion of recoveries as a result of prompt treatment; hence the supreme importance of the ordinary obstetric attendant recognizing the earliest symptoms and being able to treat with promptness those forewarnings that almost always occur.

The painful character of the delusions, and the scrupulous care with which the persons affected have to be guarded in consequence of suicidal and homicidal impulses, in many cases will compel an early separation or seclusion from friends; and, should not the premonitory symptoms yield to treatment al-

most immediately, the most humane plan is to have the patient removed to fresh scenes and, if necessary, purer air, with a special attendant, or, to recommend removal to an asylum. Too much stress cannot be laid on the importance of taking prompt measures in these cases. All authorities speak very decidedly upon this point, and anyone at all conversant with the insomnia accompanied by restlessness, irritability of manner, foul tongue, and the other signs that usher in an attack of puerperal insanity, is aware of the beneficial and in most cases curative effect resulting from the right treatment promptly applied.

If you read the various text-books upon nervous diseases, you will be struck with the emphasis which even the ancient writers laid upon the intimate relation and sympathy existing between the uterus and the other viscera, especially the brain. "There," said Hippocrates, referring to the uterus, "is the starting point of a thousand ills."

Pregnancy, as well as menstruation, is one of those physiological processes which may easily become pathological, and predispose one to morbid states by reason of the susceptible and disordered condition in which so many women find themselves at such a time. With healthy women, accustomed to healthful work and proper ways of living, the changes produced by pregnancy are scarcely noticeable; but for those, especially the dwellers in cities, whose nervous system has been vitiated by bad air and irregular habits; by improper food and constant excitement; by the various cares and trials of married life, so often entered upon heedlessly and without a thought of its duties and responsibilities; and especially by the mental emotions of chagrin and ill-humor, consequent on the too common aversion to having children; in all such cases pregnancy may become a serious matter, impressing the whole organism most profoundly, and arousing thoughts and feelings which otherwise would have remained latent.

Pregnancy produces, in those specially disposed, various phenomena of the nervous system which at once attract the notice of the physician. Whether we explain this on the grounds of a sympathetic influence radiating from the uterus,

or by the changes in the composition in the blood, it is nevertheless true that this condition presents certain symptoms impossible to mistake. Pregnancy forms, like menstruation, first and second dentition, lactation, traumatic injuries, and convalescence from severe illness, one of those physiological states in which the nervous system acquires an excessive mobility and susceptibility; and we see in pregnant women, all sorts of physical symptoms never manifested in health, such as cramp, vertigo, vomiting, syncope, etc. There are also disorders of the intellect which, though briefly alluded to by most authors, have for us a peculiar interest. These disturbances are of two kinds. The one, marked by simple changes in the moral feelings and emotions that do not take away the freedom of the will, but do give a peculiar cast to all the actions, looks and words. The other makes up a clear case of insanity. These two conditions are quite different so far as legal questions are concerned, but in reality they are different degrees of the same condition; for we occasionally meet cases which it is difficult to assign clearly to either class.

The emotional disturbances caused by pregnancy consist at times in an unnatural excitement of the intellectual faculties, but more commonly in marked discouragement and melancholy.

The causes of puerperal insanity may be divided into *predisposing* and *proximate*, or those which render the person susceptible to the disease, and those which actually occasion it.

The disease occurs under such a variety of circumstances, and in such various conditions of the system, both physical and mental, that it is often difficult to arrive at any satisfactory conclusion as to the real cause. The first attack sometimes occurs in women who have previously borne several children, passing through the periods of gestation, parturition and nursing without the slightest observable manifestation of mental disorder; while primiparæ who have been the subjects of puerperal insanity have subsequently borne children with complete immunity from the disease. Statistics show that about one-half of all the cases occur in women who have an inherited predisposition to insanity.

Among the causes, beside the hereditary predisposition just referred to, and the insane temperament, one or the other of which underlie nearly every case of insanity of whatsoever kind, we may give a front place, especially with primiparæ, to the profound and wide-spread changes which marriage itself produces in both the physical and mental life of woman; her home, surroundings, occupations, modes of life, companions, all are different. If pregnancy now sets in with the physical discomforts accompanying its onset we will find restlessness and sadness. Pregnancy is not to all women a welcome event. We all know how unwelcome such a condition is in many, very many, families, converting peace and happiness into discord and sorrow.

It would be useless for me to recount the many and varied motives assigned by our American women for their dislike to child-bearing; but all of them operate powerfully in the female mind when the unwelcome event occurs, so much so that the question would seem a pertinent one; why do they get married at all? Others again may experience chagrin lest they be detected in a fault, while yet another, having already passed the middle age and being the mother of grown up children, may experience a sense of disgrace at an unlooked for pregnancy, which may warp all the feelings of the mind and extend into a condition of true melancholia. A case of this kind came lately under my notice, when both the lady and her husband believed and reported that all the peculiar symptoms were caused by the climacteric, and the chagrin which was felt on learning the true condition of affairs came near resulting seriously.

On the other hand it is true that we meet cases where the fact of pregnancy is greeted with joy, and yet, owing to the mental constitution, the physical disturbance produces insanity. But generally these persons are cast down and discouraged, they cease to enjoy their former pleasures and remain idle and listless, saying that they are unable to apply themselves to any work. If they are primiparæ, the unknown trials through which they are to pass fill them with dread; if they have borne children, the remembrance of their past suf-

ferings gives them anxiety for the future; they are sure that they cannot survive the dangers of confinement, and this idea becoming more and more fixed serves as a centre around which all their melancholy thoughts turn. At the same time they worry about the expected child which they are sure will be hideous or deformed. To these intellectual disturbances are added physical ones; digestion is slow and difficult, and as a result we meet with constipation, diarrhœa and headache. The least emotion brings on troubles of respiration and of circulation, and the sleep is painful and disturbed by dreams. Others may present an increased liveliness and gaiety, or be fretful and irascible.

These morbid feelings are due, in great measure, to the physical changes that the system has undergone. At first, while the uterus has increased but little in volume, we may ascribe them to a sympathetic influence in the nervous centres; later, as the uterus gains in weight and volume, it produces a sensation of fatigue and languor; it compresses the iliac vessels, impedes the return of venous blood to the heart, and produces at the periphery a congested condition shown by the bluish color of the arms and legs, and also by varicose veins of those parts. There is also headache, with heaviness and drowsiness, owing to slower cerebral circulation. Still later the uterus rises higher in the pelvic basin, and pushes up the diaphragm, impeding the thoracic expansion and the oxygenation of the blood, producing a state of respiratory distress which reacts upon the emotional states and produces fear, restlessness and unhappiness.

Thus these physical causes added to the morbid tendency may produce quite serious departures from mental and physical health, which indeed may be removed by delivery, or may increase to a state of real insanity. It is by no means always easy to mark the limits which divide insanity from the warped moral dispositions which so strongly influence pregnant women as to partially deprive them of their moral freedom. Between this involuntary excitement which gives to the intellectual workings an abnormal but depraved activity, between this tendency to sadness, this depression of mind

which acts upon the whole system, and mania or melancholia, there exist an infinite variety of shades and degrees, and it is the province of the physician to distinguish them.

It is well to keep one fact in mind, viz: that the tendency to sadness, and all the changes in character and intellect, which are met with at the beginning of an ordinary pregnancy become less and less marked toward the close of that period, especially after the sixth or seventh month; while in those cases complicated with insanity, the mental disturbance is apt to increase at that time. "In such cases the majority of the attacks occur at those periods of utero-gestation which are generally considered critical, viz: the third, fifth and seventh months. This form of puerperal insanity is the most favorable, and may be considered along with another variety which is transient, and which occurs during parturition. Some few women suffer from a passing form of alienation when the pains are most acute, either when the os uteri is at full stretch, or when the head is emerging from the vagina. This form can hardly be classed as a separate one, nor placed correctly under any other, as it is more properly speaking a delirium of agony, ceasing as soon as the intense pain which causes the delirium has passed away."

We find then that among the causes of the insanity of *pregnancy* we must first place heredity, previous attacks of insanity, anæmia, painful and prolonged moral conditions, and ill-health. Perhaps it is met most frequently in those cases where the mind is disturbed from a sense of shame and disgrace for their condition.

When a woman has been insane during one pregnancy, we must fear its return at a subsequent pregnancy; but we meet with curious examples where insanity occurs only at each alternate pregnancy; or again some women are insane when pregnant with a male child only, and others with a female. Melancholia is the form generally met with in connection with pregnancy. Our prognosis should be guarded; in rare cases recovery takes place before delivery; but in most instances at the time of confinement or soon after; while in other cases parturition seems to exercise no influence whatever, so

that in forming our opinion, we must consider rather the history of the patient, her age, constitution, habits, etc., than the doubtful influence of parturition, and consider the latter as a disturbing element possessing nothing of certainty in its action.

We come now to the cases arising at the time of labor, cases which may strictly be called "puerperal." These are the most frequent and occur during the first month after delivery. Most of the cases of this variety arise during the first fortnight, and although the prognosis is not as favorable as during pregnancy, yet the recoveries are numerous and take place in much less time than the average duration of other kinds of insanity.

We are now met with the question, has the puerperal condition, strictly so-called, any predisposing influence toward insanity? We know that the puerperal state is the climax of various physiological processes, and that during the lying-in period women are disposed to pyæmia, and to infection from the putrid matters which bathe the wounded and lacerated parts; and we also find a condition of weakness similar to the nervous shock following the more severe surgical operations. After the expulsion of the child there remains an extensive suppurating surface which exposes the patient to all the dangers of purulent infection. Later we find the lochial and lacteal secretions established for a longer or shorter time, and these processes even in the most healthy organisms are attended with nervous and other disturbances which may well serve as a starting point for nervous or mental disease.

The most important predisposing cause in this as in the other forms is of course heredity or the insane temperament. It does not require that there shall have been well developed insanity in the parents, there may have been any one of the neuroses such as hysteria, epilepsy, paralysis, etc. Anæmia is a strong predisposing cause, and it may be constitutional or consecutive to hemorrhage or prolonged lactation. Previous attacks of insanity of any kind give, as might be expected, a strong tendency to the disorder; some may have apparently recovered, and the puerperal state has merely aroused the predisposition which had been slumbering for a time; but unlike

other forms of insanity, the later attacks of puerperal insanity are as curable, or nearly so, as the earlier; it often happens however that a person may suffer from an attack at each confinement and recover, and later, at the climacteric, when the nervous system again undergoes a shock, a hopeless condition of insanity may set in.

As was intimated in speaking of the insanity of pregnancy, the various moral emotions and excitements which the woman experiences may have a powerful effect in bringing on the attack; or, in brief, any prolonged influence that may disturb the system, whether by acting directly upon the body, or indirectly through the mind, may give rise to puerperal insanity.

Albuminuria is thrust upon us by Sir Jas. Simpson as a probable predisposing cause, he claiming to have found it in eight out of ten cases of puerperal insanity at the commencement of the disease; but other authorities do not agree with him in this.

Cases of mania are met with in women who have borne children so rapidly as to induce a weakened state of the system, and thus predispose to the disease, as for instance when a woman bears children four times within five years.

Among the physical causes may be classed difficult labor, injuries from violent delivery, or from forcible removal of an adherent placenta, eclampsia, great loss of blood, a disordered state of the digestive system, the nervous shock attending parturition, etc.

If we have reason to fear the occurrence of the disease in any case, we should exercise a wise interference, and should point out the dangers of too frequent pregnancy, and prolonged lactation, and we should also strive to place our patient in as favorable a moral and physical condition as possible.

In the few weeks directly following parturition mania is the form of insanity most frequently met with. It may be developed in the first few days after confinement, especially at the time of the milk-fever, or the return of the menses. The features of puerperal mania are, as a whole, very similar in their general outlines to those met with in other forms of mania. It generally begins gradually, but at times suddenly. The

woman is sad, morose, or perhaps excited; her manners and habits are changed; she manifests extravagant affection for her family and child, or the most intense aversion; she becomes loquacious and talks incessantly, weeping and laughing without cause. The senses become more active and acute; the least noise causes disturbance.

These symptoms are similar to those we may observe in many susceptible women at the time of the milk-fever. But in these as a rule the symptoms soon disappear, while if the patient is of the insane temperament, or is under unfavorable conditions, they may increase and the patient is insane. The attack is usually preceded by insomnia, irritability and unrest. The general demeanor of the patient is unusual. She is anxious, troubled and agitated. Her movements are hurried, eyes restless, and the expression of the face is that of anxiety and distrust; she is impatient and fault-finding in a marked degree; anger is easily excited, and vacillation of purpose is evident in the contradictory orders frequently given. The patient is pale, the features pinched, pulse small, irritable and usually accelerated in proportion to the excitement; the temperature of the body is below the normal standard, and the skin often clammy; there is great debility, yet she is blatantly noisy; she stares wildly at imaginary objects, and instead of answering a question she repeats it, or she talks incoherently, uttering her words with great rapidity. She picks at the bedclothes; grasps at anything or any one around her; curses and swears, sings, laughs, prays and yells; objects to being confined in bed, complains of being watched and tries to escape. Occasionally obscene language and lascivious actions are indulged in to an extent that excites our amazement. All considerations of decency and propriety are cast aside, and the most filthy and profane language is poured forth with astonishing volubility. Masturbation is sometimes noticed, but probably more from a wish to allay irritation than a desire to excite it. The obscenity of word and manner often continues until convalescence is well advanced. She imagines that some calamity has befallen her husband, or that her babe is dead or has been stolen; and if brought to her she says it is not hers,

refuses to nurse it and even attempts to kill it if left within her reach. Sometimes she is impressed with the idea that her husband is unfaithful, and has conspired with others to poison her. Confidence and affection give place to suspicion and hatred. She may think herself dead and in hell, surrounded by flames of fire, and consider those around her to be devils in the guise of men and women. Again, she will manifest great anxiety with regard to herself, fears that she will die; thinks that she has been poisoned; that she is flooding to death, that her blood has turned to water, etc.; or, on the other hand, she may manifest an absolute indifference to everything. Suicide is often attempted by violently throwing herself on the floor, attempting to jump from a window, strangling herself with a handkerchief or the bed-clothes, or stabbing suddenly with some sharp instrument, as the scissors or a knife; this is generally the result of an impulse, and without method or premeditation. She refuses to eat, and it often becomes necessary to use force, the tongue is coated; and the head aches, this latter is usually described as being of a throbbing, bursting character; or else a sharp, cutting pain; the bowels are generally constipated, the secretion of urine diminished and the lochia suppressed.

This description of course applies only to the more severe cases, but in the more mild the symptoms present the same general characteristics, differing only in degree.

These cases are generally curable, and you may usually hope for recovery within six months. As one author has said, "the question is not will she recover, but how soon will she recover." Some patients, however, die from the exhaustion attending the maniacal excitement, or from some intercurrent disease, such as consumption; or the hereditary taint may be so strong, or the surrounding influences so unfavorable, that reason cannot be restored. In some cases acute delirium may set in and complicate the case, especially when the attack sets in soon after delivery; or we may have erysipelas, phlebitis, or a slow, nervous fever, as further complications.

The following record, from the case-book of the Homœ-

opathic Asylum at Middletown, will give a good idea of the course of a case of puerperal mania:

"K. D. T., admitted October 26th, 1878; female; æt. 23; married; has one child, four weeks old; the present attack of insanity, the first, has lasted three weeks. Pupils slightly dilated; pulse 80 to 90, and irregular; respiration 20.

"The first indication of any mental disturbance was noticed about one week after confinement, when she was possessed of an inordinate desire to talk, and indulged in a great many wild remarks about herself, her baby and her surroundings. She now imagines herself to be a queen, or that she is beautiful, or that she is the wife of another than her husband, but manifests no fixed delusion. Pulse 84; temperature 98.6°; disinclined to stay in bed, and wants to walk constantly; talks and sings constantly; mind wanders, and is easily moved to laughter. ℞. Hyosc.

"Oct. 27th.—Temperature normal; pulse 74; pupils dilated; tongue slightly cracked. Slept some yesterday afternoon, and two hours last night; constant rambling talk; much thirst.

"Oct. 28th.—Temperature normal; pulse 80; tongue streaked with white; pupils slightly dilated; bowels constipated; thirsty. Is very talkative about yellow-fever, etc., and says she does not want to live. Has had three hours sleep, but was tied into bed to keep her off her feet. An examination with the speculum showed the uterus partially retroverted; os uteri gaping, very red and granulated; also a copious, white, creamy leucorrhœa. Small quantity of milk in breasts.

"Oct. 29th.—Temperature 100.4; pulse 78. Reported as having slept none, but says she slept between the visits of the night-watch, and some during the evening. Stayed in bed without restraint. More quiet; pupils less dilated; tongue less coated; no pain. Hears heavenly music all the time. Has been resurrected from the dead.

"Oct. 30th.—Pulse 78; would not let her temperature be taken. Pupils more dilated; talkative and anxious to get away. Says this is a house of prostitution; that she has been given Belladonna and the clothes smell of it. Will be dead this week if kept here. Bowels constipated; tongue streaked; slept poorly.

"Oct. 31st.—Temperature 99.3; pulse 72. Talking constantly, wandering from one subject to another; two hours' sleep; says she could not sleep as she was afraid. Pupils less dilated; head not as hot; cheeks less flushed.

"Nov. 1st.—Temperature and pulse as before; says she slept at times during the night, but thinks she will die to-night; is not inclined to take nourishment this morning. Is good-natured, talking, laughing and crying. Tongue coated white. Religious delusions.

"Nov. 2d.—Temp. 99.3; pulse 72. Thinks the superintendent is her husband; says she has taken smut-rye and Belladonna in everything she has eaten; talks about fallen women, masonic lodges, etc., wandering from one subject to another. Thinks the house is full of men at night who try to insult her, and would outrage her if she did not keep awake. Had four hours sleep.

"Nov. 4th.—Temp. 98.6; pulse 88. Thinks it is the last of the world, and that 'she smells dead bodies around her.' Has three buttons on her dress which she says are the stars in the east. Says that Belladonna was given to her last night. Is inclined to cry, and worries about saving those around her. Is troublesome about taking medicine, and the pupils are dilated. Talks incessantly, 'I am Mary, the mother of Jesus. I had a baby last night and will have to have another to-night. I want to be a Roman Catholic apostolic priest. I hear the heavenly music.'

"Nov. 7th.—Temp. 100; pulse 84. Slept one hour. Continues talkative, 'I am here as Peter; see myself in a thousand shapes.' Hears music; wants air and company. ℞. Stramonium.

"Nov. 12th.—Temp. 99.3; pulse 84. Mischievous yesterday, and threw things out of the window; this morning broke dishes and top of a bureau. Looks worn.

"Nov. 14th.—Pulse 76. Eats well, and says the steak she had for breakfast was venison. Good-natured, singing, laughing and mischievous. ℞. Hyosc.

"Nov. 18th.—Temp. 98.6; pulse 78. No sleep; ate no breakfast; is quiet and depressed; says 'they gave me urine to drink last night.'

"Nov. 19th.—Temp. 98; pulse 84. Afraid to eat; says she has been poisoned too much.

"Dec. 10th.—Is worried about going to heaven, and not trusting enough in her Savior. Pupils dilated. Bowels constipated.

"Dec. 12th.—Says she don't want to live any longer. Head hot, and mental depression. Had to be fed with tube yesterday and again this morning. ℞. Bellad.

"Dec. 16th.—Pulse 96. Complains of a pain in the forehead, and pressure and weight in the head. Thinks her life has been a failure. Broke her dishes last night, and had to be fed with a tube this morning.

"Dec. 19th.—Pulse 90. Throat sore, and painful on swallowing. Tongue coated white; breath offensive; feet cold. Has much feeling of religious depression, but promises to eat. ℞. Merc. proto-iod.

"Dec. 23rd.—Pulse 72. Head heavy, but no pain; is willing to eat. Had a visit from her brother yesterday and seems much more cheerful to-day.

"Dec. 29th.—Pulse 66. Slept three hours last night; her head feels dull, and she is homesick.

"Jan. 3rd, 1879.—Pleasant and quiet. Has few delusions, and is less influenced by them.

"Jan. 16th.—Talks rationally and is sent home on parole.

"Feb. 17th.—Discharged recovered."

The next form that we meet is that of lactation, and the most frequent cause is heredity. Another cause is anæmia, due to the exhaustion produced by too prolonged suckling of the child, reducing the woman to a state almost identical with that seen in those who have lost large quantities of blood. There may also be some blood-poisoning, caused by a failure of the kidneys to properly eliminate effete matters from the system.

In the Insanity of Lactation the mental condition is either that of mania or melancholy, or an alternation of the two conditions. Melancholy is the more frequent. The mania is violent, but evanescent, and is not associated with the obscenity so prominent in puerperal insanity proper, otherwise

it is similar to the mania described. The melancholy is characterized by great depression of mind, the face is pale and the expression dejected. The pulse varies but little from the normal standard, while the temperature of the body is usually rather below that of health; all the secretions are diminished; the tongue presents an unhealthy appearance; the digestion is impaired and the bowels constipated. She will sometimes sit for hours, silent and motionless, indifferent to everything that is going on around her. She never asks for anything, makes any inquiry, or expresses any desire. She will speak when spoken to, and will generally comply with the requests of her attendant, partake of her food when offered to her, but as a rule only sparingly, and sometimes not at all. In the worst cases the ordinary calls of nature are disregarded, unless she is reminded of them. She is wakeful, despondent and apprehensive. Her mind dwells upon some particular subject, usually of a religious character. She accuses herself of being vile and sinful, and expresses great fear and anxiety in regard to her future state. It is remarked by some authors that in cases of puerperal melancholia, any violence contemplated by the patient is against herself, while in acute puerperal mania the propensity of the patient is to do injury to others.

Dr. Forbes Winslow has called attention to the stage of incubation, and it is during this variable period that treatment is of most value. But beside this period of incubation there is also a period, after the cessation of the maniacal ravings, and in the midst of the state of melancholy, of dementia of varying severity. In some cases this is so marked that it becomes a question in the physician's mind, whether the patient will ever regain her intellect, and he may be sufficiently impressed with the gravity or prolongation of this demented condition to give a hopeless prognosis of the case. The recoveries are so numerous, even after a long period of apathy, that great caution should be observed in the opinion given as to the ultimate recovery of the patient.

Prognosis. There are three ways in which puerperal insanity may terminate.

1. In the restoration to reason.
2. In permanent insanity.
3. In death.

The ultimate restoration to a state of sanity may be reasonably expected in a large majority of cases. A favorable prognosis, however, depends upon the absence of complications. In making up our mind we should keep in mind the reciprocal influence of the body upon the mind and vice versa. The mental phenomena may sometimes be but the simple exponents of organic or functional disease of some distant part of the body. It is a well known fact that the mental functions of the brain may be deranged by the sympathetic influence of some distant diseased organ. A rapid and inflammatory state of the pulse is unfavorable, as it indicates inflammation of some internal organ, the usual symptoms of which are marked by the mental condition. The latency of the symptoms of acute and chronic affections amongst the insane is well known to alienist physicians, and is one of the great difficulties with which they have to contend. The mental symptoms may even be so prominent as to completely mask the bodily disease to which they are due, while the bodily health of the patient may appear but little impaired. Dr. Tuke says, "phthisis may exist for years undetected, were it not for the stethoscope, without cough, sweats, emaciation, or hectic, till the disease is very far advanced. Tuberculosis of other organs may run its course without any indication of its presence. Caries and necrosis kill without pain, most extensive abscesses collect without causing inconvenience." In the insane, reflex action is impaired. The chronic maniac may die of phthisis, bronchitis or even pleurisy, without cough or pain, however extensive the disturbance may be. These facts apply equally to the subjects of puerperal insanity. Peritonitis, bronchitis, pelvic cellulitis, and inflammation of vital organs, may exist without a discoverable symptom, if we except an inflammatory pulse, and even this is sometimes absent.

When the attack is ushered in soon after delivery, with a rapid pulse and furious mania, the life of the patient is in great danger. It may be laid down as a general principle

that the longer the interval between delivery and the onset of the disease, the more favorable the prognosis, but the less favorable to complete restoration to reason. According to Gooch, "mania is more dangerous to life,—melancholia to reason."

Females who have previously had attacks of insanity, are liable to another at any succeeding pregnancy.

Dr. Crichton Browne, who has had a large experience, is of opinion that the swarthy complexioned, and dark haired women, when affected with this disease, are much longer before they recover, and also that the after period of dementia is much more prolonged in them than in the fair-haired.

The duration of the disease is uncertain. In some cases it may last but a few days, and in others months or even two or three years will elapse and recovery then take place. A majority, however, recover in from six months to a year.

Treatment. It is quite evident that no general plan of treatment will suit every case, inasmuch as each one has an individuality of its own. The state of the general health should be rigidly inquired into, and any deviation from the normal standard rectified as far as possible. Diet, baths, ventilation and out-door exercise (if the physical condition of the patient will allow), should be insisted upon and carried out under the guidance of the physician. The warm bath is a useful remedy, both in regard to its diaphoretic qualities, and on account of a special calming effect it seems to have upon the patient. The patient should be surrounded with every possible comfort and convenience, and provided with a female attendant (two will be needed, if the case is likely to be protracted, so that one or the other may constantly be on duty), accustomed to the charge of the insane, and who has tact and firmness in controlling the patient. No one should be allowed in the sick-room whose presence seems to have even the slightest irritating effect upon her, and this rule should be enforced even if it excludes the husband and other near relatives. The patient should not be left for a moment alone, or with one physically unable to control her in any effect at escape or self violence. Every thing that can be used as instruments of violence, such as knives,

scissors, razors, etc., should never be left within her reach; cords, handkerchief, or articles of dress by which strangulation might be effected should not be allowed her under any pretence whatever. It the patient is very violent and unmanageable it will be better to confine her in a strait-jacket than to restrain her by physical force, which will always excite more or less resistance on her part.

Therapeutics. There are two or three agents employed by the old school whose use you will do well to bear in mind, both for your patient's sake, and because you will not want to see your patient pass into another physician's hands. The first of these is Chloral Hydrate. There are some cases when your patient in spite of your best efforts will not close her eyes for several days and nights in succession. Her nature demands sleep; her friends demand it for her; you will have tried your indicated remedy and yet no sleep. In such cases the Hydrate of Chloral is a valuable remedy. It may be given in doses of 20 or 30 grains at night, but care should be taken that the condition of the patient after taking it, is, as regards the surroundings, that of absolute quiet. The continued use of this drug is attended by many dangers, and although very useful when given in single doses, yet it may prove a most dangerous remedy when continued for any length of time.

Bromide of Potassium is one of the most valuable remedies used, especially in the true puerperal mania occurring within the month of parturition. Its action is prompt in this form of insanity, in which the principal topic of the rambling talk is connected either directly or indirectly with the generative functions, the remedy seems to have great power in controling the lewd discourse, and erotic desires. Ten grain doses may be given at bed-time or twice per day, dissolved in water.

The remedies from the homœopathic Materia Medica, to which I have called your attention as useful in the other forms of insanity, will not fail you in this, if used according to the proper indications. We do not prescribe for a name, but for the whole condition of the patient, but in those cases when the mental symptoms are the prominent ones, we are guided in the choice of our remedy by mental symptoms. I will give

a brief résumé of the leading indications and then speak of three or four remedies concerning which I have thus far said but little.

When fear of approaching death is a prominent symptom, especially when accompanied by an inflammatory state of the pulse: *Acon.* She imagines herself a criminal: *Bellad., Cuprum, Mercur.* Fixed ideas: *Ignat., Silic.* Despair of her salvation: *Ignat., Laches., Pulsat., Sulphur.* Apprehends want and means of support: *Bryon., Calc. carb., Nux vom.* She has visions of ghosts and demons: *Arsen., Bellad., Cuprum, Opium, Platina.* When haunted by visions of rats and mice: *Arsen.* and *Calc. carb.* When by vermin and worms: *Cimicif., Nux vom.* When she imagines herself surrounded by dead bodies, or sees pins everywhere: *Silic.* Fear of being poisoned: *Hyosc.* and *Rhus tox.* Objects appear large to her, everything is magnified: *Hyosc.* and *Cann. ind.* Objects appear smaller: *Platina.* She swears and scolds: *Anac., Lycop.* She tries to escape: *Bellad., Stramon.* When shameless, immodest, strips off her clothes: *Hyosc., Phosphor., Stramon.* and *Veratr. alb.* If lascivious: *Bellad., Stramon., Veratr. alb.* When she desires to be alone: *Calc. carb., Cuprum* and *Ignat.* When she dreads being left alone: *Cimicif., Lycop., Phosphor., Stramon.* She desires company, but does not want to be talked to: *Gelsem.* If imperious, commanding that this and that be done: *Cuprum, Lycop., Sulphur.* If sly, tricky and malicious: *Laches., Nux vom.* If she sings, warbles and whistles: *Bellad., Crocus, Stramon.* When given to censure and rebuke: *Arsen., Capsic., Helonias, Veratr. alb.* If she weeps: *Bellad., Ignat., Kali brom., Natr. mur., Pulsat., Platina; Sepia, Sulphur.* If she is devotional and prays a good deal: *Aurum, Pulsat., Bellad., Hyosc., Stramon.* and *Veratr.* For melancholy of a religious nature: *Arnica, Aurum, Cuprum, Kali brom., Laches., Lycop., Pulsat., Silic., Staphis., Sulphur, Veratr. alb.* For suicidal melancholy: *Arsen., Aurum, Helleb., Hepar s. c., Nux vom., Pulsat., Secale, Veratr. alb.* For silent melancholy: *Arnica, Cactus, Coccul., Conium, Helleb., Ignat., Lycop., Nux vom., Phosph. ac., Petrol., Pulsat., Silic., Stramon.*

Anacardium is a remedy which, although not frequently

called for, is very valuable in some cases. It has great weakness of memory, and forgetfulness.

Imagines she hears voices of persons far away.

Feels as though she had two wills, one commanding to do what the other forbids. Unsociability; aversion to work or to society. At times almost a demented condition.

Very irritable, passionate and contradictory.

Does all sorts of foolish things in a clumsy way, almost as if under the influence of liquor.

Gelsemium is one of my favorite remedies; and in my hands it occupies a place between Aconite and Bellad. It has cataleptic immobility, with dilated pupils, closed eyes, but conscious.

Desires to be let alone; irritable, sensitive.

Loquacity, brilliant eyes, shooting through temples.

Depression of spirits, and anxiety or solicitude about the present. Fear of death.

Mental exertions cause a sense of helplessness from brain-weakness; inability to attend to anything requiring thought.

Attack brought on from bad news.

Generally feeling of fulness in the head; throbbing of carotids, etc. Head feels heavy, and symptoms of hyperæmia. Heat at base of brain.

Gelsem. is useful both during the maniacal and melancholic stages, and is a valuable remedy.

Conium mac., is a remedy which will occasionally be of use, especially when in connection with the melancholia there is some uterine or ovarian trouble. Its mental symptoms are:

Extreme want of memory.

Dulness; difficulty in understanding what she reads or what is said.

Aversion to man, and yet averse to being alone.

Indifference to everything.

Hypochondriacal depression.

Easily disturbed by trifles, and moved to tears.

Morose mood.

Headache and vertigo. Buzzing and roaring sounds in the ears.

Hepar sulphur. The last remedy to which I will call your attention is Hepar sulphur.

The effects of Hepar upon the sensorium is of a very *depressing* character, causing most frightful *anguish* and fearfulness, as of perishing in consequence of this condition, which may not be at all serious; particularly during the evening hours, and before midnight; the sadness is so great that one meditates suicide. When walking alone in the *open air* one feels greatly discouraged and ill-humored, is reminded of all the disagreeable thoughts and occurrences of a life-time, and is apprehensive upon no reasonable ground about one's own family and some impending misfortune. The memory is exceedingly weak, frequently allowing the use of wrong terms, and this condition is found to exist, especially when one is in an irritable frame of mind. Frightful visions make their appearance while in a conscious state in bed in the morning, and after rising an exceedingly irritable condition remains, accompanied by mental depression. The *over-sensitiveness* and *irritability*, even to hasty speaking, are characteristic.

You will see that Hepar presents a good picture of the stage of incubation, so to speak, of the melancholia of pregnancy and of lactation.

Few things will be more difficult for you than the proper management of a case of puerperal insanity, for every one will be ready to interfere with plans and suggestions, but if you keep firm and carry the case to a successful conclusion it will aid you much in your medical career.

LECTURE XIV.

Epileptic Insanity.

One of the most important of the so-called varieties of insanity, especially in a medico-legal point of view, is that where the mental disease is complicated with epilepsy. For if you can demonstrate to proof that a criminal act was committed under the influence of the epileptic paroxysm, the accused will not be held responsible for the act; while Jules Falret, one of the ablest observers and writers on the subject, goes so far as to say that all epileptics are irresponsible beings.

The insanity associated with epilepsy usually, though not always, takes the form of mania. Pathologically, this form of insanity does not form a complete class by itself, but it is convenient to consider it by itself in these lectures.

As you doubtless know, the paroxysmal recurrence of epilepsy forms one of its chief pathognomonic features, and the main elements of the existence of the disease are, unconsciousness, muscular convulsion and mental disturbance. The occurrence of these three fundamental phenomena does not appear with unvarying distinctness, inasmuch as one or more of them may acquire such a prominence as to impart a specific character to the epileptic paroxysm. No one of these isolated symptoms would, however, suffice to prove epilepsy, any more than one single mad act would prove insanity. Nevertheless, in every case, unconsciousness displays itself conspicuously, in some instances assuming such an absolute prominence as to constitute almost the whole epileptic fit.

According to Dr. Reynolds, author of a standard work on epilepsy, the memory and mental powers become affected in but a small proportion of the cases of epilepsy. He says that:

1. Epilepsy does not necessarily involve any mental change.

2. That considerable intellectual impairment exists in some cases, but that it is the exception, not the rule.

3. That women suffer more frequently and more severely than men.

4. That the commonest failure is loss of memory, and that this, if regarded in all degrees, is more common than integrity of that faculty.

5. That apprehension is more often found preserved than injured.

6. That ulterior mental changes are rare.

7. That depression of spirits and timidity are common in the male sex, but not in the female; that excitability of temper was found in both.

Dr. Marcé, physician to the Bicêtre at Paris, says, on the contrary, that perfect integrity of the intellect and emotions in epileptics is of exceedingly rare occurrence, and it is useless to cite the history of a few great men, such as Cæsar, Mahomet, Petrarch and Napoleon, who are alleged to have been epileptics, against the testimony offered by daily experience.

Dr. Althaus says, in his late work on Nervous Diseases, "Even where there is no epileptic vertigo and automatic action of the lower nervous centres, the mental condition of epileptics is almost always peculiar. They are not really insane, but eccentric, suspicious, ill-tempered, quarrelsome, fault-finding, fretful and difficult to get along with. They seem to expand only with those who are similarly affected, but are otherwise shy, peevish, gloomy and exclusive. Their intellect is below the average, and their memory impaired, more especially after attacks. Their judgment is often incorrect, and they are generally unhappy."

We see here very clearly the insane temperament so strongly insisted upon by Prof. Maudsley, and would naturally expect, as is the case, that epilepsy very frequently superinduces insanity. Dr. M. G. Echeverria says, that during a period of thirteen years he analyzed and recorded the history of 532 cases of epilepsy, 267 of which were of manifest epileptic insanity. In these 267 cases, insanity, paralysis or epilepsy was noticed among the ancestors of 83; intemperance in the parents of 50, and phthisis among the ancestors of 83; and in 18 of these last cases there were consumptive brothers in the family. This would lend strength to the opinion advanced

by Schrœder Van der Kolk, that insanity may appear transformed from one generation to another into epilepsy or phthisis or vice versa.

Dr. Maudsley says in the *Journal of Mental Science*, October, 1872: "In addition to entire absence or perversion of moral sense, without feelings of remorse, which experience of habitual criminals brings prominently out; other important facts which we learn from an investigation of their family histories are, that a considerable proportion of them are weak-minded or epileptic, or become insane, or that they spring from families in which insanity, epilepsy or some other neurosis exists; and that the diseases from which they suffer, and from which they die, are chiefly tubercular diseases and diseases of the nervous system. Crime, is not then, always a simple affair of yielding to an evil impulse or a vicious passion, which might be checked were ordinary control exercised; it is clearly sometimes the result of a neurosis which has close relations of nature and descent to other neuroses, especially the epileptic and the insane neuroses; and this neurosis is the physical result of physiological law of production and evolution."

Dr. Jules Falret says: "Whenever we meet with isolated acts of violence, outrage to persons, homicide, suicide, arson, which nothing seems to have instigated; and when, upon attentive examination and thorough inquiry, we find a loss of memory after the perpetration of the act, with a periodicity in the recurrence of the same act, and a brief duration, we may diagnose larval epilepsy." (*Annal. Med. Psyc.*, January, 1873.)

An analysis of the cases presented by Dr. Echeverria, shows that hereditary predisposition, intemperance, ill-health and injuries to the head, are the principal causes which combine with the epileptic condition and produce insanity. Dr. Reynolds states that hereditary taint is not essential to the production of mental failure in epilepsy, and, after analyzing thirty-four cases, says: "The numbers represented in the above table are too small to establish any doctrine with regard to the degrees of mental failure, and their relation to he-

reditary taint; but they are amply sufficient to prove that there is no necessary dependence of the one upon the other."

The much fuller statistics of Dr. Echeverria contradict the above statement, for out of 135 patients in whom the hereditary taint was known and confessed, 83 displayed insanity, and the 52 remaining showed some peculiarity in their character, or a manifest weakness of mind with defective memory; consequently it is very consistent with reason to believe that there must be a dependence between hereditary taint and mental failure, although the presence of the latter does not necessarily involve the existence of the former, which is not an absolutely essential condition of mental failure, since it may arise from other etiological elements.

Epileptic insanity may display itself like all other varieties of insanity in an intermittent, a remittent and a continued form. The intermittent form is characterized by periodical attacks, breaking out with intervals of variable regularity. In the remittent form, there is no complete recovery of intellectual soundness between the paroxysms or maniacal exacerbations; and lastly in the continuous form, the mental trouble exhibits a permanent character, not essentially modified by the recurrence of the fits.

Epilepsy may be defined as a chronic disease of which the characteristic symptom is a sudden loss or trouble of consciousness occurring occasionally. This affection of consciousness is sometimes accompanied by evident spasms of muscles, and sometimes occurs without obvious spasm.

Dr. J. Hughlings Jackson says that there are three varieties or rather degrees of epilepsy as thus defined; and they are called (a) vertigo, (b) le petit mal, (c) le grand mal. "Not only is there affection of consciousness in each of these, but it is, I repeat, the first, or nearly the first thing in the paroxysm; this must be borne in mind. There are three other things about epilepsy to be kept vividly in mind.

"1. That there occur all degrees of obscuration of consciousness, not loss only, in cases of epilepsy. From temporary confusion of thoughts (which is defect of consciousness) to deepest coma there are all gradations. In fact the patient who is sub-

ject to genuine epileptic attacks may have had abortive seizures without any affection of consciousness before he ever had a full attack; for example he may have had paroxysmal epigastric sensations only.

"2. That there are all degrees of severity of epileptic paroxysms, from giddiness attended by trivial confusion of thought, to a full violent seizure with universal convulsion and deep coma.

"3. And, most important, that cases of epilepsy in which there are the slightest attacks are the worst for the mind. We must not forget this for two reasons: (a) the importance of these attacks is unfortunately often underrated because they are slight; (b) the attack being slight and transitory it is liable to be overlooked, and attention may be paid to its sequelæ, that is, to the patient's grotesque actions, raving, etc. These may in a woman be erroneously attributed to hysteria, and in a savage man to criminal intent. The gravity of these cases is not because the paroxysms are slight, but because the 'discharging lesion' in cases in which such slight fits occur, is of the highest and most intellectual nervous arrangements (substrata of consciousness)." (*West Riding Reports*, Vol. 5.)

Dr. Jules Falret divides the mental maladies of epileptics into three classes.

1. Those in which the mental disturbance manifests itself in the intervals of the epilepsy and may be independent of it.

2. Those in which the mental disorder occurs as a temporary phenomenon, and either precedes, accompanies or follows the epilepsy.

3. Those in which the mental symptoms occur in paroxysms of greater or less duration, either directly with or independently of the vertiginous or convulsive phenomena.

Dr. Dickson, Lecturer on Mental Diseases at Guy's Hospital, London, prefers to condense these three divisions into two;

1. That in which the epilepsy and the insanity are more or less independent of one another.

2. That in which they are so associated as to be more or less dependent upon one another.

The first class of cases is very common in asylums. The

constant and habitual state of the patients is insanity, from which they appear never to be entirely free; their epilepsy recurring at greater or less intervals, and seemingly independent of their insanity. Sometimes the patients drop down, pass through one or more fits, and recover without any apparent alteration in their mental condition; sometimes they exhibit an increase in their habitual excitement, but the tendency of all these cases is downward and toward absolute and complete dementia.

In some cases the epileptic fit is a mere dizziness or vertigo, and in some cases the giddiness even, is not apparent to the observer, and all that is observable is the transient mental disturbance. Sometimes in incipient cases the disturbance will be shown in perverted speech. A case is reported by Forbes Winslow of a lady who, at times, in attempting to repeat the Lord's prayer, gave utterance to "Our Father which art in Hell," instead of "Our Father which art in Heaven." This tendency caused her great mental agony.

Dr. Beddoes knew a gentleman who, previously to an attack of epilepsy, misplaced his words in a singular manner. For example he would say, "Everbody feels very languid this *wet* weather—I mean this *hot* weather," or, "Come who will sit down to supper? here is only cold meat and pudding,—I mean pie." Dr. Dickson says that he too has occasionally met with cases where the patient so misused words, as to say *hot* for *cold*, *wet* for *dry*, and sometimes he has seen very clearly marked cases of temporary aphasia.

At times the conduct of epileptics undergoes strange vicissitudes; in a very short time passing from gay to grave, and from grave to gay. They may become, without apparent cause, peevish, desponding, sad or depressed; or they may become irritable, magnify little worries into annoyances of great moment, engage in rash and hazardous undertakings incompatible with sound judgment; or lend themselves to quarrels or to violence, which have no seeming origin, and which are inexplicable unless the epilepsy be recognized. Again, they may suffer from confusion of ideas and loss of memory; or their memory was never so powerful or their intellect so brilliant.

"Remarkable intellectual activity has sometimes signalized," says Morel, "the commencement of epilepsy among the young. A wonderful aptitude to conceive things quickly, to examine them under their most brilliant and poetical aspects, has been exhibited by many of them. History has transmitted to us the names of several great men who have been epileptics; but these have been the victims of the most tyrannical passions. The full and entire preservation of the faculties of epileptics, the possibility of applying them in a continuous manner to the execution of designs remarkable for their grandeur and continuity, are in fact excessively rare.

"The first change remarked in the character of epileptics threatened with insanity, is the very great irritability, which takes place without, and even at, the least contradiction, under the most varied, and sometimes most compromising forms. Hypochondriasis and hysteria have an undeniable action in the delirium which begins to systematize itself in the minds of the patients. Preoccupations on the subject of their health, unjust complaints, recriminations without foundation, decided venereal tendencies, are facts which awake the just solicitude of families." (*Traité des Maladies Mentales.* p. 696.)

Prof. Trousseau says in one of his lectures: "If there have been epileptics who, in spite of more or less frequent attacks, have retained to the end of even a pretty long career, not only the perfections of their reason, but also the full force of their intellect, and like those men of genius whose names history has handed down to us, preserved that superior intelligence, instances of this kind are too exceptional to invalidate the general law.

Maudsley further remarks: "It is not so clearly understood that the mental derangement so occurring may have the form of profound disturbance with homicidal propensity, without manifest intellectual derangement." He also points out the frequency of such phenomena in children who afterwards become insane. He says children three and four years old are sometimes seized with sudden fits of shrieking, desperate stubbornness, or furious rage, in which they bite, tear, and destroy what they can lay hand upon,—these may occur periodically,

and may either pass in a few moments into developed epilepsy, or alternate with epileptiform attacks, representing a vicarious epilepsy.

In this connection it is convenient to note that the epilepsies of which the "discharging lesions" are seated in the highest nervous arrangements are those which occur in asylums in connection with insanity. Clinically speaking, asylum cases are most often those in which the paroxysms begin by loss of consciousness, which is equivalent to the anatomico-physiological statement, that the discharge begins in the highest nervous centres; or we may say that these cases generally begin without a warning. Dr. Crichton Browne says, that in *asylum practice*, an aura is of rare occurrence in epilepsy. He says that using the term *aura* in its widest sense to include all prodromata, all symptoms, psychical, sensory or motor, which immediately precede a paroxysm, an aura is rare in a lunatic hospital. He says, however, that the absence of an aura may be owing to the fact that the patients are often far advanced in the disease when admitted; and again, it may not be recognized by the patients, because their feelings and intelligence are blunted. But in cases which occur in hospitals, there is sometimes an aura, but loss of consciousness soon follows; loss of consciousness is *almost* the first thing. Then the warnings are of a particular kind. They are frequently vertigo, epigastric uneasiness, or a general creeping, tingling or thrilling of the skin. Dr. Browne says, that "when auras are present they are almost invariably general in character, and consist in indescribable feelings in the head or abdomen, spreading thence over the body, or in this universal creeping, tingling and thrilling of the skin.

Foville remarks that "a peculiar sensation, it may be of cold, pain, heat or itching, is developed suddenly in a toe, a finger, a limb, in the belly or the back, and from the point where it originates, mounts gradually to the head. When it arrives there the patient falls (as if struck) and the convulsions break forth at once."

"On the eve of a fit," says Dr. Radcliffe, "confirmed epileptics are noticed to sit or move about in a moping and list-

less manner; to complain of chills and shiverings, or of faintness and sickness. Occasionally there is headache, dazzling of the eyes, singing in the ears, and other excitement of sensation; slight flushing of the face, dilatation of the pupils, and *extreme irritability of temper.*"

Again, the very cases in which the intellect is most rapidly affected are those in which there are very slight attacks beginning with, or apparently constituted solely by, loss of consciousness, *le vertige épileptique* and *le petit mal*, of the French writers.

"The greatest injury to the intellect is not inflicted by the most frightful and frequent convulsions, nor when the mature and muscular man struggles like a chain-bound Hercules. Absence of mind, momentary obliviousness, vertiginous feelings, a pause, a stoppage or an intermission in consciousness, such as has been described as the *petit mal*, as surely and swiftly produce enfeeblement." (Dr. W. A. Browne, *Journal of Mental Science*, October 1865.)

"On a remarqué que *l'absence*, malgré sa légèreté apparente, est la forme la plus redoubtable au point de vue de l'altération des facultés intellectuelles." (Jaccoud, *Pathologie Interne*, p. 394.)

Whatever marked the stage of excitation during the continuance of the disturbance, is as a rule forgotten when the brain recovers itself. Sometimes there is a memory of what has passed, a memory vague and dream-like, usually very painful and depressing; or a feeling as though something had occurred, but a something they cannot account for or recall.

Falret commenting upon the actions and other phenomena presented by patients in this somnambulistic state, says: "No one can form any accurate notion of the irascible feeling which suddenly seizes the epileptic and urges him to strike and to smash everything near him.

During these transient attacks of fury he is dangerous to those about him as well as to himself, and the attention of medical men cannot be too earnestly drawn to these conditions of instinctive and blind violence, which all authors have pointed out as frequent results of epileptic fits.

In order to gain a clear idea of this peculiar epileptic character let us see what Le Grand de Saulle says of it in his work *"La Folie devant les Tribunaux"*.—"The character of the epileptic is made up of contradictions; nothing can equal the frequency, rapidity and marked contrast of its changes. The same person whose crabbed disposition, ill-natured and obstinate, just now attracted your attention suddenly becomes submissive, flattering, obsequious and fawning. The versatility of the mental manifestations in epileptics is such that at our morning visit to our patient we find him affable, gay, demonstrative, enthusiastic; he is proud of his actions, and boasts of the resources of his mind, and the qualities of his heart; he speaks with lavish praise of his wife, his children and his friends; and is so blinded as to his real condition, as to enumerate a quantity of extravagant projects to which he means to devote himself as soon as he is well enough to go out. A few hours later, if you revisit him, this same man will be sadly crouching in a corner; he weeps and is in the depths of despair. Approach him and make kindly inquiries, and he will return a look of suffering and of shame; he will speak to you of the dreadful results of his disease, of the forced seclusion in which he is doubtless condemned to remain as long as he lives; of his strong desire to be cured, and the bitterness with which his life is filled." (p. 268.)

Violence and perversity are not all that characterize the epileptic; there is also the impassioned state produced by the emotions which he experiences. These emotions excited by the disease often become so vivid that they control the whole mind, and stifle all manifestations of the moral sentiments which might oppose them, and which the person would feel were he in his normal state. Thus we see one of these epileptics in the impassioned state, at times controlled by violence and anger, sometimes by ambitious and haughty passions, and at others by shame and discouragement. Under the influence of the emotions imposed by disease, and of the impassioned state produced thereby, deliriums arise, and strong desires which make of him an insane man. The abnormal excitement of his nervous system, together with the nerves of

sense, is especially favorable to the production of hallucinations, as we shall see later.

In his valuable memoir on the "*Mental State of Epileptics*," Dr. Jules Falret draws a distinction between the intellectual *grand mal*, and the intellectual *petit mal*, indicating these by a close relation between the physical and psychical manifestations of the disease. The intellectual *grand mal* corresponds, according to Falret, with the incoherent and violent state commonly described as furious mania. The intellectual *petit mal* may continue from several hours to several days, constituting an intermediate condition between the irregularities of character which attend the fits, and the highest disturbances of the furious maniacal seizures. This state is mainly disclosed by a great confusion of mind, accompanied with instinctive instantaneous impulse and acts of violence. No sooner has the stupor of the epileptic fit subsided, then the patient laboring under this particular kind of delirium, becomes sullen and deeply dejected, with great confusion of mind, and irritability against everything surrounding him. The patient feels an utter inability to collect or fix his thoughts and to master his will, which is variably displayed according to the social position of the individual. Epileptics have no energy or desire (during the paroxysm), to overcome these feelings, and, seized by a vague anxiety, or hallucination, or an involuntary dread, they leave their homes to wander aimlessly about.

In the midst of this confusion of mind they recall to their memory painful past impressions, which spontaneously spring up in their imagination, always the same at every new access; and it is during this terrible condition that such epileptics give themselves up to acts of violence, in the most sudden instantaneous manner, thus committing homicide, suicide, arson, or any other criminal deed, and giving vent to their rage, blindly striking repeated blows at their victims and fearfully mangling them. After the fit of violence a crisis may take place, the patient either returns to himself, in a sort of instantaneous manner, regaining his consciousness and rendering an imperfect account of his misdeed; or, on the contrary, he tries to escape, running away in a bewildered state of great

agitation. In some cases, however, there will be present both motive and premeditation; the insane epileptic may commit the criminal act deliberately, and yet be under the influence of morbid emotions and of delusive ideas.

Dr. Maudsley says: "There are no special features so distinctly marking an epileptic homicide as to enable us to identify it on every occasion; but those which will commonly be observed are an absence of intelligible motive, an absence of premeditation, great determination and ferocity in the execution, much more violence than necessary being used, an absence of secrecy in the execution or of concealment afterwards, a great indifference and absence of remorse, and an incomplete and fragmentary remembrance of all the circumstances, if not a complete forgetfulness of them." (*Responsibility in Mental Disease*, p. 245.)

In these cases, the very confused recollection, if not the complete oblivion of what has happened, is almost always a striking essential symptom of the mental state, so much resembling the awakening from a dreadful dream.

This paralyzed condition of the brain which occurs during the convulsive attack, may continue for some time afterwards. If the nervous centres, then in a state of activity, are not overexcited, they do not produce this attack of rage, but merely the ordinary features of an attack of somnambulism. Drs. Darwin, Pritchard and Maudsley have pointed out the affinity between epilepsy and somnambulism. This also has been well pointed out by Falret, who says: "There are certain incomplete attacks of epilepsy, which hold an intermediate place between the simple vertigo and the full paroxysm, and which occur while the patient appears perfectly conscious of everything about him. Such persons pronounce words, or commit acts which would make one doubt the real epileptic nature of the attack and would lead us to ascribe to them a freedom of will and moral sense to which they can lay no claim. This singular mental condition, in many respects resembles ordinary somnambulism, and other neuroses besides epilepsy." A remarkable phenomenon, which frequently occurs in these incomplete attacks of epilepsy, or in the interval between two com-

plete attacks should be noticed in this place, though examples will be given later. The patient seems to have come to himself, enters into conversation with those around, and performs certain acts apparently dictated by the will. Then the epileptic attack recommences, and when the patient again emerges from its influence, he has no remembrance of the words or acts of the interval between the two paroxysms. Such are the principal traits of the two conditions delineated by Falret, and as a rule actually exhibited by the epileptic insane.

Dr. Echeverria says that although the description here given is true as a whole, yet the ingenious distinction between the intellectual *grand mal*, and the intellectual *petit mal*, and their respective relations to the corresponding physical conditions of epilepsy, involve a connection which is far from being constant. The most fearful fits of rage and frenzy he ever witnessed were superinduced after attacks of simple *petit mal*, and he says that fits of furious mania have too repeatedly fallen under his observation to regard the phenomena as of exceptional occurrence. We find also, after successive fits of *grand mal*, or of *petit mal*, or of both together, a state of harmless insanity, with the highest degree of melancholia with stupor, without the violent reactions which, as set forth by Falret, should, in the intellectual *grand mal*, exclusively follow the physical *grand mal*. In other instances, the epileptic, without any dejection or stupidity, talks and acts coherently, in an apparently rational manner, but actually without any appreciation of his outward relations; and this change may supervene in connection with diurnal or nocturnal fits, or throughout the paroxysms of cerebral or larvated epilepsy. All these various manifestations, not corresponding to any of the two intellectual varieties proposed by Falret, necessarily shake the foundation of his absolute division.

According to Van der Kolk, Kussmaul, Brown-Sequard and others, the pathology of epilepsy has its starting point in the medulla oblongata. The two essential phenomena are loss of consciousness and convulsions, and these being the states or conditions produced, the question arises, What is the immediate exciting cause?

Dr. Reynolds argues that loss of consciousness is a simple negative condition, and that the convulsion is due to irritation at the medulla, or upper part of the spinal axis, and is the modification of a normal function, and not the effect of a structural change, since the organ shows a complete structural integrity in the interval between the fits. He considers, therefore, that the convulsion is a simple excess of normal action. "The nature of the morbid change is," he writes, "an exaggeration in degree of the functional activity of the medulla oblongata, and upper part of spinal axis," and he considers that augmented activity in the nutritive processes is the prime and essential factor in epilepsy. The seizure or excess of action, however, he believes may be brought on by lesions of the adjacent or other tissue.

Dr. Sankey, Lecturer on Mental Diseases, at University College, London, thinks that in cases of epileptic mania there is an extension of this morbid activity to the rest of the cerebral organs, and a certain persistence of it in those parts presiding over motility; for, not only is the patient convulsed, but for a period anterior and subsequent to the fit, there is generally exhibited great restlessness and irritability of the motor faculties.

Dr. Echeverria looks upon epileptic insanity as one of the manifestations of the spasmodic neurosis, recognizing its essential and primary source, not in the fits, but in the very etiological elements of the disease. The various fits are nothing else but paroxysmal manifestations, which may accompany each other in a close sequence, or exist entirely by themselves; separate, though nevertheless depending upon one common etiology. We do not know why under certain circumstances we have to contend with fits of *petit mal*, in others with fits of *grand mal*, and in others again with nocturnal attacks; neither can we better explain why the counterpart of these convulsive paroxysms should be characterized by purely cerebral symptoms unattended by any spasmodic phenomena. Morever, Falret positively asserts that there is but one form of epileptic insanity, in which the delirium and convulsions are not two distinct maladies, but two diverse manifestations of the same morbid

state, which may exist separately or simultaneously, or within short intervals of each other.

Marcé says that in the immense majority of cases the attack of rage is consecutive to the fit. The delirium arises immediately after the period of stupor, that is to say sometimes a quarter of an hour, sometimes many hours or even some days after the convulsion. In some exceptional cases the delirium precedes the convulsion which thus seems to serve as a crisis. The paroxysm of mania, may then have a duration of some hours or days. At times the fit abruptly ends the period of delirium, and at others, the latter disappears slowly and gradually. Finally there are a few rare cases when the fit has been both preceded and followed by delirium. Falret reports one case in which the convulsion was preceded by melancholy and followed by mania. For all these reasons, instead of attempting to establish an immediate relation of cause to effect—which could only be proved with difficulty,—between the intellectual and physical paroxysms, I have thought it safer to adopt the usual division, and to consider unconsciousness and the excessive reflex susceptibility as the chief characteristics of epileptic insanity, capable of breaking out, either alone, or coupled with any other form of the epileptic malady.

I cannot leave this topic, however, without quoting the views of Dr. J. Hughlings Jackson, and I do so the more readily, since it is only of late that the important mental changes connected with epilepsy are receiving the attention they deserve.

Dr. Jackson says: "It is convenient to have one name for all kinds of doings after epileptic fits, from slight vagaries up to homicidal actions. They have one common character; they are *automatic;* they are done unconsciously, and the agent is irresponsible. Hence I use the word *mental automatism.* I say mental, as the doings are probably external signs of crude mental states—external signs of 'epileptic dreams.'

"I have spoken of mental automatism as occurring *after* the paroxysm, but I must mention that according to some, I believe most, alienist physicians that degree of it which is called epileptic mania, although it usually occurs *after* a fit,

does not always do so. It sometimes *replaces* a fit. A patient who is subject to ordinary epileptic attacks may, on this hypothesis have, as it were, *instead*, a paroxysm of mania. It has been said that the patient who is subject to attacks in which there is convulsion of muscles, may at another time have an attack in which there is 'convulsion of ideas' and corresponding excess of external action (mania). I used to adopt the theory of masked epilepsy. But I do not now think it possible that a nervous discharge at all comparable in degree to that which causes convulsion would cause even such caricatures of normal action as occur either in epileptic mania or in slight cases of mental automatism. I now think another hypothesis is preferable. I think it is probable that there is a transitory epileptic paroxysm in every case of mental automatism occurring in epileptics before their mental automatism sets in. I am fully aware, and freely admit, that occasionally no signs of a prior fit are *discoverable*. The patient who at other times has ordinary convulsive seizures may become suddenly maniacal, although even when under observation he presented no physical change to indicate a paroxysm before the raving begins. To acknowledge this fully let me give an example. A very intelligent medical man came up to town with an epileptic patient of mine. He afterwards told me that the patient became suddenly, without any premonitory symptom to indicate an epileptic paroxysm, very much excited, struggling more or less violently with his attendants for twenty minutes. I believe there is in such cases, during the paroxysm, an internal discharge too slight to cause obvious external effects, but strong enough to put out of use for a time more or less of the highest nervous centres. For medico-legal purposes it may, however, be assumed either that mental automatism always occurs after, or that in some cases it replaces an epileptic seizure." (*Temporary Mental Disorders after Epileptic Paroxysms. West Riding Reports, Vol.* 5.)

Dr. Thorne Thorne of London has published in St. Bartholomew's Hospital Reports, 1870, a valuable case, especially noteworthy from the peculiar mental symptoms which in a measure replaced the ordinary convulsive attack.

"H. S., a coach builder, æt. 36, and of temperate habits, had, fourteen years previous to the present history, been exposed to the sun's rays for some time, and suffered from some pain in the head for three weeks afterwards. After a rheumatic illness three years subsequently, the pain returned, and he had never been free from it for any time since; he had, too, occasional attacks of dimness of sight and trembling. He married and became the father of several children. Nine or ten years after his partial sun-stroke he had several well marked epileptic fits, and they continued increasing in frequency until he had one on an average every third week. Up to this time in the clinical history we have nothing but a well marked case of epilepsy; about this time a train of morbid mental phenomena appeared. Whilst in hospital for slight bronchitis, he is reported to have become 'strange in manner,' and to have had some delusions. One night he suddenly jumped out of bed, rushed wildly to the door of the ward, which he quickly opened, and then fell to the ground, on his back. He was picked up, and carried to his bed; he seemed to retain consciousness, but gave no explanation of his conduct. During his stay in the hospital, which was about a month, he was liable to these attacks, that is, spells of mental excitement, associated with delusions, and followed by periods of depression. In the intervals he was cheerful, his manner was calm, and he was always ready to make himself useful. Before his admission into the hospital he had never had any mental symptoms, but during the next two years they frequently recurred in a very marked form. He had occasionally suffered from spells of mental depression, but these gradually were transformed into paroxysms of acute mental excitement. In these attacks he becomes suddenly wild, his intellect is confused, and he will snatch up a knife, and declare aloud that he is going to kill his children, rushing after them into the closets, etc., where, terror-stricken, they may hide. After his wife has removed everything with which he might do himself and others harm, and locked up with him trying to pacify him, more than once it has required all her strength and tact to hinder him from throwing himself out of the window. After

remaining in this state for several hours, and sometimes for an entire night, he will gradually get quiet and go to sleep. On awaking he has but a *dim recollection* that he has in any way been ailing, and *none whatever* of what he has done or said during the attack. These attacks are preceded by the same warning symptoms as his regular epileptic fits; viz: a sensation of cold and trembling.

"It is also stated that this man subsequently became a subject of kleptomania. On one occasion he was arrested for stealing his fellow-workmen's tools which had been found in his possession. He most emphatically asserted that he had not taken the articles. His well-known honesty and previous history favored the notion that the theft had been done during an access of epileptic vertigo. On medical evidence to that effect being given, the charge was withdrawn and he was released. The medical officer of the prison, who examined him, however, was unable to state that he could at that time find any indications of mental unsoundness; although, having heard of his former attacks, he said that he could not doubt that such indications had from time to time manifested themselves. This man is unquestionably liable during an access of his disorder to commit some serious criminal act. It will be remembered that his first impulsive act was to rush madly, and apparently without purpose to the door of the ward of the hospital, and he might just as well have made a motiveless, murderous attack upon a fellow-patient."

At a meeting of the New York Medico-Legal Society, May, 17th, 1871. Dr. Meredith Clymer reported the following case; "About a year ago I was consulted by a middle aged gentleman, who told me of his troubles as follows: Without warning or immediate provocation, he would suddenly have the most horrible homicidal impulse toward certain persons, who, either really, or at the moment he imagined, had injured, or slighted or offended him. In his room, or in the street, or crossing a public square, the fit instantly seized him, and fancying the supposed evil-doer before him, he would strike at him with some murderous fantastic weapon, stabbing him in the neck, or breast, or belly, with a sharp instrument, or giving a blow on

the head with a blunt one, the act being accompanied with the most violent, reproachful language. He said, he was not aware that in the street, or when any one was present, the gesture or speech were more than subjective; but, if alone, he knew that he spoke aloud, and suited the words to the action. The fit over, he always felt very much exhausted, with more or less loss of power, particularly recently, of the left extremities. Although occasionally in the company of some of the menaced persons, he had never felt at such times any disposition to harm them, or to behave towards them in any way that showed the feelings he at periods involuntarily experienced regarding them; but he was tormented by the apprehension that the time might come when he would be attacked whilst in their presence, and thus commit some horrible crime. He was a man of high moral tone and Christian training and practice, irritable, subject to temper-fits from childhood, but naturally of an amiable and generous disposition. He was greatly disturbed at his infirmity, had for some time concealed it, and at last, dreading the possible consequences sought advice. He said that he had more than once decided to go voluntarily to an asylum, but was withheld from the fear of exposure, and injury to his prospects and family. Although he had had many vexations from pecuniary losses and general bad luck, he was usually cheerful. He had no headache, and his general health was excellent. After one of these spells his left arm would grow weary and his left leg weighted, along with some numbness and tingling in the parts; these sensations would soon pass off. He had had neuralgic attacks occasionally for years, but they had become lighter and rarer. He never had suffered from epileptic fits, or, as he thought, anything like them; nor had any of his family. One day he asked me to prescribe something for *a sore tongue*, and on examination I found evidence of its having been bitten, which led me to believe that he was subject to *nocturnal attacks*; and, on being questioned, he admitted that often before falling asleep, he had remarked that his jaw snapped, and sometimes his limbs jerked. I looked upon these phenomena apparently so insignificant, as really the key to the psychical troubles."

In some cases of epileptic insanity, the profound stupidity or the state of pseudo-catalepsy into which the patient is sunk, prevents the reaction of the reflex susceptibility, which underlies the generation of impulsive acts; but I find no case on record where the existence of unconsciousness was not clearly manifest. We quote from Dr. Dickson's "*Medicine in Relation to Mind*," a case of this sort. He says: "I saw a gentleman the other day, of whom I learned that on two occasions he had suddenly risen from the dinner table, walked to a corner of the room, made water, and then returned to his seat, quite unconscious of what he had done. On another occasion he lost his way completely in the neighborhood where he lived, and was so utterly unable to give any account of himself that he was taken into custody by the police, and kept in their charge until his friends were found. On a third occasion his right arm was found to have become paralyzed during the night; the paralysis was very transient and soon passed away, but it pointed to an origin like epilepsy, and I learned that the patient was subject to attacks of violence and excitement of which he remembered nothing when the paroxysm had passed. His friends had never seen him in a convulsive fit, and therefore doubted the epileptic character of his malady. I, however, had no doubt of it, and my opinion is supported by the fact that the gentleman is becoming gradually, but certainly, progressively demented."

You may remember a somewhat similar case mentioned by Trousseau in his lectures. The patient, a French judge, got up from his seat one day whilst the court was sitting, muttered some unintelligible words, went to the council room, and returned in a few moments, unconscious of having left his seat. When his colleagues asked him where he had been, he answered them that he did not recollect having moved from his place. Shortly afterwards he got up in the same manner, and the usher was told to follow him, and he was seen to enter the council room, make water in a corner, and then again return into the court, but he was altogether ignorant of what he had done.

We may have epileptic attacks where the mental disturb-

ance is pushed to a state of delirium; unconsciousness then becomes obvious in the stupor, which Delasiauve has pointed out as the characteristic accompaniment of epileptic delirium. As you would naturally suppose, epileptic insanity usually assumes the form of mania. It begins suddenly, and in a very short time reaches a high degree of excitement and violence, after having been preceded or not, for a few hours, by sadness, irritability, or some physical ailment, such as headache, vomiting, alteration of the voice, or some slight convulsive movement of the face and limbs. This excitement once started is never held within moderate bounds. The patients, a prey to blind rage, break everything upon which they lay hands; they tear, strike, bite and yell; they dash their heads against the wall, and attack with rage anyone who approaches, and, for the time, more nearly resemble wild beasts than human beings. Thus they are justly considered as the most terrible and most to be dreaded of all lunatics. Overmastered by ideas of terror, pursued by hallucinations of sight and hearing; they see and hear around them armed assassins who seek to kill them; they perceive flames and circles of fire, and their visions impress them deeply with sentiments of confusion and terror. Then it is, that, driven by an irresistible impulse, they seize the first weapon near to hand, and striking right and left vent their anger and fury upon the animate or inanimate objects which they may meet in their course. Dr. Sankey says, that while he was at Hanwell, an epileptic male patient, while digging in the fields, was seized with his paroxysm, and rushed blindly upon an inoffensive patient near, and cut him down with the blade of the spade, inflicting frightful injury, and killing him on the spot.

Some other characteristics enable us to distinguish epileptic from ordinary uncomplicated mania; for instance it is said that all the paroxysms in the same patient present an absolute resemblance, not simply as a whole, but in all its details. When one has carefully observed the different phases of one paroxysm of epileptic mania, he will be surprised to see that particular patient express the same ideas, in the same words; commit the same acts; experience, in a word, the same physi-

cal and moral phenomena at each subsequent paroxysm. It is also worthy of note, that in spite of the disorder and violence of the acts; the *words* spoken by the epileptic insane are less incoherent than those of other maniacs. They comprehend better the questions asked them, and are more apt to notice things about them.

The following cases will serve to illustrate the peculiar tendency to violence and passion.

A Swabian peasant, aged twenty-seven years, whose parents did not enjoy the best health, had been epileptic from his eighth to his twenty-fifth year. But the character of his disease then underwent a change; in place of epileptic convulsions, the man found himself with an irresistible impulse to commit murder. He felt the approach of the homicidal paroxysm for several hours, and sometimes for a day, before it came on, and then earnestly begged to be bound, lest he should commit a crime. "When it seizes me" he said, "I must kill some one, were it only an infant." His mother and father, whom he loved dearly, were the first victims of these fits: "Mother," he cried in a loud voice, "save yourself, or I must strangle you." Before the attack he was greatly exhausted, had slight convulsive movements in the limbs, and was overpowered with a feeling of sleep, without being able to go to sleep. During the paroxysm which lasted one or two days, he retained consciousness, and knew perfectly that if he committed murder he would be guilty of a crime; and when he was put under restraint, he made contortions and fearful grimaces, sometimes singing and sometimes speaking in rhyme. When it was over, he cried, "Unloose me. Alas! I have suffered greatly; but I am well out of it, since I have killed no one." (Esquirol.)

A man, aged fifty-five, sober and industrious, had suffered from an attack of cerebral hemorrhage a year ago, and remained hemiplegic. His intelligence was sound and he followed his usual occupation. But his character was changed; he felt weary of life; he had become morose and irritable; and he complained that at times the *blood rose to his head*, when vertigo, noises in the ears, and flashes before the eyes, occurred.

These attacks became periodic. During them his heart beat violently, his eyes were injected, the face flushed, the fingers of paralysed side contracted, the arteries of neck throbbed; he was unspeakably dejected, wept, said he was lost, and became furious, throwing himself upon his wife and children, and during the very transitory delirium, had several times attempted suicide. (Morel.)

The paroxysms of epileptic mania are never of long duration. Marcé says that it is rarely that they continue more than a few days. Echeverria says, and this is very important for us to remember for medico-legal reasons: "Let me notice distinctly, that epileptic mania very seldom lasts *less* than *two or three hours*, and I have never met with one instance of shorter duration." The patient suddenly becomes calm, and in a few hours resumes his accustomed state without any well-marked period of transition; he frequently presents, by the timidity of his acts, his distrustful and anxious mind, a most striking contrast with his late scenes of violence.

Some present a short intermediate period of physical and intellectual torpor, from which they emerge as from a dream, preserving only a vague and confused remembrance of the events occurring during the paroxysms. Nothing similar to this, you will observe, takes place during an ordinary attack of mania, even when it lasts some weeks or months. In ordinary *mania*, the patient preserves with extraordinary tenacity the remembrance of those things occurring even when he was most excited.

The description just given is that of epileptic mania as it occurs in close connection with the fits, and such as you will recognize in practice at once, and easily refer to them; but we have another form, the "larvated epilepsy" of Morel, the intermittent form of Echeverria; allusion to which has already been made. This generally accompanies the fits, it has often a subsequent occurrence, though it not rarely heralds them; in some instances the fit breaks out as though it were an intercurrent phenomena of epileptic insanity, and in yet other instances it may go on even to its most dreadful stages without any fit being seen or suspected.

I will now translate what Morel says about Epilepsia larvalis. He founds the name upon the periodic recurrence of the violence, which he considers to be in fact a kind of epileptic seizure, and he uses the word *larvalis*, to signify that the true convulsions of the disease remain in a larval condition, in a chrysalis state. At page 480 of his *Treatise on Mental Diseases*, he writes: "I have remarked for some considerable time a certain class of patients in whom the accession of the excitement, which was like, and was in reality, a state of mania in the most rigorous acceptation of the term, alternated with periods of remission, so perfect and prolonged, that there could be no room for doubt in my mind that this patient had completely recovered. And it has been only after being painfully and repeatedly deceived on this point that I have been obliged to give a more special attention to the cause and development of the disease in this class of patients. That which struck me more especially has been the sudden invasion of the morbid phenomena after remissions which have varied in duration from several months to intervals of years. The friends whom I have carefully questioned, have not been able to particularize any premonitory symptom or warning of the attack. On the eve of the paroxysm the patients neglect their ordinary occupations, but make no complaints. There is to be observed only an increased activity in their movements and a peculiar excitability; the patient then breaks out suddenly in the same manner that characterized their former paroxysms, in extraordinary acts of violence; in exhibitions of the most dangerous propensities and irresistible impulses, so that I have had to sincerely regret that I have ever authorized the discharge of these patients, so deplorable have been the circumstances attending their relapse." "On readmission, these patients," Dr. Morel goes on to say, "after a period of excitement equal in duration to that of their former attack, suddenly return to their former quiescent condition exactly as before, presenting the same evidences of recovery as those which led me to discharge them from the asylum. My experience," he adds, "however, has made me more prudent, and the exhibition of a phenomenon which had existed in a larval condition, has

allowed me to place these cases in the class to which in reality they belong. These patients have presented a close resemblance to epileptics in the character of their ideas and actions, but to such an extent only as to leave me up to a certain time in doubt as to the true nature of the disease. It has occurred to me since to witness several patients whose attacks had all the character of the relapse, the intermittence and periodicity that I have described, and who have subsequently been the subject of well-marked epileptic seizures."

Dr. Sankey calls attention in his lectures to the similarity of this description to that of the cases commonly known as recurrent insanity, in which the patient after a comparatively sane and quiet period, suddenly breaks out into violence, or exhibits as suddenly some extraordinary or insane act, the act differing in different cases; in some being that of homicide, and he gives the following case under his care at Hanwell.

Case.—E. S., was taken up at Chelsea by a policeman for creating a disturbance. She got into a physician's carriage which was standing at a patient's house, and vociferated to the coachman to drive on. She could only with great difficulty be dislodged from the vehicle; she resisted violently, and was taken to the station and thence to the work-house; and, after making a great disturbance there, was sent to prison. In prison she disobeyed the rules, and was several times punished. At last she was sent to the asylum. On admission she behaved well for awhile, then began to encroach by making extravagant demands for indulgences, and, if refused, she broke windows, and threatened and attacked several of the female officers. She broke and destroyed with great dexterity her rooms, however strongly secured. At times she would go a whole week without eating. Her violence when it commenced lasted several days, and for several days afterwards she remained quiet, then began again to be mischievous and to plot. She was at times neat and tidy in her person; at times filthy and disgusting. She had no attack of epilepsy while under my observation, during about eight months. It was a case which, from the intellectual integrity and apparent wilful perversity, would be considered by many, and indeed was by several, to

be merely a moral delinquency. The history of the case was, however, that up to the age of twenty she was a hardworking, industrious retiring person, her sister said, "the reverse of what she had become." About the age of twenty she lost her mother somewhat suddenly, and became melancholic and out of her mind, and was sent to an asylum in Ireland. She was there some time and had several epileptic fits while there, and continued to have fits regularly for some time afterwards. The fits, in fact, had only left her shortly before she was taken insane again. The nature of this case would have been very obscure without the history of the attack; and, indeed, it is very doubtful whether popular diagnosis would have been in her favor, had her unruly acts brought her before a public tribunal. The patient had been repeatedly punished while in prison, without effecting any improvement in her conduct." (*Lectures on Mental Diseases.*)

Dr. Sankey says that this class of cases resemble those quoted by Morel, in the termination by distinct epileptic seizures, and they resemble in everything but the epileptic seizures, the cases which Dr. Sankey with others have called recurrent mania. They resemble that form: 1. In the recurrence of distinct attacks of violence, at more or less regular intervals. 2. In the violence of the paroxysmal outbreak. 3. In the somewhat rapid cessation of the symptoms, and return to comparative lucid condition. 4. In the very slight permanent injury to the intellect. 5. In the irritability of disposition present in the intervals, and frequently exhibited by accusations of unfairness or injustice towards themselves. 6. The positive denial of having acted improperly; in self-justification, and in strenuous denial of ever having been insane. The whole of the phenomena viewed together to his mind brings these cases of *larval epilepsy* and cases of recurrent mania into close pathological proximity; there seems to be some approximation indeed between the two pathological conditions, especially in the phenomena of periodicity.

The great danger from epileptics originates from their morbid impulses more than from their intellectual derangements. The abnormal increase of their reflex faculty makes

them act without reflection, and it is from this source that most of their misdeeds flow. They react involuntarily to every physical or moral incitation. Their ideas are derived from feelings exaggerated by the hyperæsthetic condition into which they are carried, and which must therefore necessarily expose them to irresistible acts. These acts are, then, always sudden and instantaneous, for any ordinary feeling or impression perceived by a brain so deeply upset in its functional activity is beyond the control of the will, and gives rise to perverted ideas, automatically developed. It is necessary, however, to say that such instantaneous, impulsive acts are quite distinct from the condition of transitory mania, during which they arise, and with which they should not be confounded. Morel, indeed, emphatically declares that there is no such thing as instantaneous insanity, but instantaneous evil acts in relation to the effects of some kind of mental disorder displayed by the parents of the culprit. Echeverria says that he goes a step further, and, without simply confining their source to heredity, fastens such instantaneous acts to some unsuspected form of epilepsy, when, by tracing back the history of the individual, we discover indications of the epileptic disease in its hidden varieties, such as *nocturnal fits*, or simply *vertigo*. These considerations place *mania transitoria* on the only sound and evident grounds on which it can be established, without lending ourselves to the prevalent misuse of it which has been made to exculpate criminals. The fact is further more important, to account for the extreme susceptibility of epileptics and their evil propensities, where insanity has not been fully developed. It is readily recognized that many of the reported cases of *mania transitoria* prove to be, upon closer investigation, those of unsuspected epilepsy or epileptic insanity. It is also worthy of remark that the greater the excitement and incoherence, the less liable will the epileptic maniac be to commit an assault or acts of violence, which are usually the offspring of the hallucinations and perverted feelings, underlying the apparently inoffensive and quieter-looking forms of epileptic insanity.

On the subject of vertigo or nocturnal epilepsy, and the ju-

dicial errors to which these doubtful cases lead, Dumesnil, the celebrated French jurist, writes: "I have treated a great many epileptics who exhibited their attacks at long intervals, experiencing thereafter an irresistible impulse to strike other persons, to steal, to commit arson, etc., but who returned afterward to their natural state, without displaying any indication whatever beyond their antecedents to account for their evil inclinations. How easy it is to err in such instances if we solely judge from present actions without resting on any safer data."

"A young lad who had committed several thefts was recently transferred from the prison of Bicêtre to Quatre-Mares; he managed to escape thirty-six hours after admission, when he seemed hardly recovered from a fit, and was arrested the very next day near Louviers for burglary. Nothing in the answers of this man betrayed the disease in question. However, the imperial attorney, without discontinuing proceedings, kept him under close guard, and when the information was received from the prefecture, he immediately became convinced of the frequency of his fits, their attending intellectual derangement, and the complete mental recovery intervening between them, therefore the return of the patient to the asylum was at once ordered."

There are other cases still more perplexing, viz., those in which the convulsive accident is only evidenced by a slight *vertigo*, that may pass unnoticed for a long time, although, nevertheless, attended by the most strange and dangerous impulses. Dumesnil gives some very curious observations of this kind, upon which point there is a lack of scientific documents. "A soldier, a subject to more or less frequent outbursts of passion, was brought before a court-martial on a charge of having gravely insulted his superior officer. A medical investigation was instituted, and thereupon the arraigned soldier was transferred to an insane hospital, when it was ascertained that he was subject to mild attacks of periodical mania. Long afterwards I had occasion to satisfy myself that each one of these attacks was preceded during the night by a slight nervous fit. This condition had passed

ignored by the patient himself, by those who for several years had kept close to him, and by those who attended him.

"At the present time three of my patients at Quatre-Mares have only been considered epileptic for eighteen months, after having spent several years at Saint Yon without this dreadful complication having been suspected. These insane patients are the most dangerous, their fury breaks out suddenly and is almost always directed against some person, most frequently terminating in the quickest manner, and *recurring at such distant intervals* that one might think it a complete recovery after a simple attack of mania.

"I would take pains to affirm that there is now no patient at the institution under my direction, whose insanity is not intimately associated with slight nocturnal attacks, which up to the present time have escaped our attention and may become recognized at any moment after a stronger attack or a fit of vertigo in the daytime, as happened with the patient above alluded to.

"A man arraigned for larceny, and recently admitted into the hospital, whose physignomy had struck me, and whose delirium exhibited very similar characteristics was discovered a few days ago as having epileptic fits during his sleep. At present this man evinces no sign of insanity, and does *not recollect* the larceny he committed, or the circumstances connected with it."

I will also cite a case from Morel, as it is such a one as you will be very apt to meet in your practice, and also such a one as generally excites but little sympathy from the apparent absence of moral sense. A young man condemned to five years imprisonment by a Court of Assizes, for having without provocation inflicted a nearly fatal blow on one of his best friends, was subject to epileptic fits during his sleep. Morel had the opportunity of verifying the fact at the prison where this young man was incarcerated. This unfortunate sprung from a family among whose ancestors were epileptics, lunatics, and others that died of cerebral hemorrhage. He had no distinct recollection of the act for which he had been tried, nor did he show the least grief; and such an apparent insensibil-

ity, the result of his disease, helped in no small degree to condemn him. Morel further remarks, that on repeated occasions the young man had struck his friends without provocation, and that he had exhibited dulness and hypochondria.

You probably have noticed that in all these cases stress has been laid upon the *unconsciousness*, which is one of the chief characteristics of epileptic insanity, but in nearly all the English and American text-books on the jurisprudence of insanity this point has been almost entirely ignored. Even in Dr. Ray's work it is merely said, "such loss of consciousness is not so far removed from the psychical impairment ordinarily attributed to epilepsy as to render its occurrence impossible." This statement was made after remarking that Winnemore (tried for the murder of Dorcas Magilton), and others committed homicide in a state of unconsciouness not immediately connected with a fit; but as Dr. Ray himself says, "Winnemore stated that he once rowed about in a boat on the river for several hours, without being conscious of the fact, having been told of it by those who saw him."

We occasionally read of persons wandering from home for days at a time, and when they return or are found, they are unable to give any account of where they have been. The following case from Dr. Echeverria is a good example: "A young man fell from the top of a ladder, fifteen feet high, and became epileptic thereafter. He would while in conversation, stop suddenly, drop his head and look as if dead, but would regain consciousness in a few seconds, entirely unaware of his condition. One evening, after one of the attacks, he went into the street, took a horse and buggy which he found in front of a house, rode over a mile and a half to his father's grave, pulled the flowers from the bushes planted over it, and brought them home to his mother whom he invited to take a ride. Being asked where he procured the horse and buggy, he answered that he found them in the street. His mother desired him to go forthwith to a livery stable and there leave the horse and wagon, that they might be returned to their owner. He started to do so, but left the horse and buggy for keeping at a livery stable, as his own. When discovered by

the owner the transaction was looked upon as larceny, thereby causing great annoyance and mortification to the family. The boy, however, could never account for his conduct, and completely forgot every circumstance connected with it. On another more recent occasion, he left home after the attack, and, while wandering through New York, came across a shipping agent, who engaged him to go as a sailor on board an English vessel starting for London. The agreement was signed, and, after leaving almost all his pay and some of his personal effects, he started for England. The captain discovered from the start that he was no sailor, and, finding him very flighty, exempted him from going to the top of the masts and assigned to him very light duties. A few days after his departure, on coming out from this state of epileptic insanity, he expressed great surprise at finding himself on board a vessel bound for London, and completely ignorant how he came to be there. The mother discovered through the police the departure of her son, and took the necessary steps to have him brought back. He has similar attacks of insanity after nocturnal paroxysms, or fits of *petit mal*, but is very rational and gentle in the periods intervening between the paroxysms, during which he is very mischievous, inclined to be constantly running and wandering about, and prone to acts of violence."

You are doubtless aware that in many cases of epilepsy, the paroxysm is preceded by a peculiar sensation, varying in its nature with different persons, called an *aura*. Allusion to this was made at an early point in this lecture.

This epileptic aura may not only vary in its nature, but may involve the intellectual, sensory or motor faculties, or exclusively the vascular and secretory systems. Without attempting to describe those varieties with which you are familiar, I will give here only the characteristics of the mental aura, scarcely described by our American writers. Falret says: "Just as different bodily derangements may precede the epilepsy by a few moments or a few hours; for example several kinds of indisposition, headache, vomiting, pains of various sorts, or else the sensory or muscular symptoms to which the generic

term of epileptic aura has been applied; so also the convulsive attacks of epilepsy may be preceded either immediately or at a greater or less distance, by different disorders of mind and temper. Thus, it happens that certain epileptics become sad, peevish, irritable, quarrelsome, often for several hours before the fits. Others again complain of slowness of conception, failure of memory, obtuseness of ideas, or a kind of hebetude, or physical or moral prostration which to those used to their society, or to themselves, are sure presages of an approaching fit. Others, lastly, display for several hours before the epileptic attack an unusual gaiety, an exaggerated sense of physical and moral well-being, an unbounded confidence in their own strength, and sometimes even a state of restlessness and loquacity which may be pushed on to maniacal excitement, or to violent outbursts of passion. Apart from these precursory symptoms, which may come on at a variable time previous to an epileptic seizure there are other more immediate intellectual prodromata, a sort of *intellectual aura*, which only precedes the convulsive paroxysm by a few minutes, and constitutes in a certain measure the first symptoms thereof. We see, for example, some epileptics in whom the same idea, the same recollection, or the same hallucination, springs up spontaneously at the moment of the invasion of the fit, and invariably precedes its appearance. The patient sees flames, fiery circles, red or purple objects, a ghost or a phantom; he hears the sound of bells, or a determined voice always uttering the same word, or lastly he may perceive the smell of some peculiar substance. These ideas and recollections, or these false sensations which are excessively variable as to individuals, ordinarily reproduce themselves with singular uniformity in the same individual in each successive attack. It is further a curious fact that, very often, this recollection, this idea, or this image is the reproduction of an idea or a sensation which provoked the first fit in the patient. Many, in fact, who have become epileptic after strong mental exertion or intense terror, behold again in spirit or before their eyes, on each succeeding seizure, the painful or the dreadful scene which first produced their complaint."

I have used the description given by Falret in his work on the "*Mental State of Epileptics*," because it would be impossible for me to render so precise and clear an account of the intellectual aura, as is given by him.

The psychical phenomena attending the paroxysm, and peculiar to it, though not of constant occurrence, deserve the most attentive consideration, since their sudden intervention may render epileptics, not otherwise insane, extremely dangerous and liable to commit suicide or murderous acts of violence for which they could not be held responsible. Echeverria reports the following: "A gentleman subject to fits of *grand mal*, every five or six weeks, manifests for a day or two before, the most extraordinary ill-temper and sensitiveness, with a sad expression of countenance, and assaults and insults the bystanders without provocation. These propensities and periods of unnatural excitement are displayed before, but never after, the paroxysms; and, as this breaks out, he always sees with the left eye a hideous black and human figure, which slowly magnifies as it approaches him. His head perspires freely after the attack and no perceptible difference has been detected with the ophthalmoscope between the right and left optic nerve. This patient, during one of these premonitory stages, assaulted his attendant with a chair; and gave him a blow on the head, which left him senseless, because the attendant asked him how he was feeling. Then he ran to his sister in a frantic condition, told her that he had killed the attendant, and dropped in a fit. This epileptic is perfectly rational at other times, when he can render a circumstantial account of his distressing feelings. During the temporary disorder of action preceding the fits, his eyes and cheeks become flushed, and he has to be kept in seclusion."

You will notice that in many of the cases mentioned in this lecture, there were hallucinations of the various senses; and the statistics of 267 cases of epileptic insanity show hallucinations in 86 per cent., while about 30 per cent. displayed disturbance of general sensibility, such as anæsthesia, hyperæsthesia and numbness.

Brierre de Boismont, one of the highest authorities on this

subject of hallucination and illusion, disapproves of the manner in which those who have discussed the legal responsibility of epileptics have so thoroughly ignored the relation between the hallucination and epilepsy, in considering only the epileptic shock which simply impairs the will. He says: "Sometimes the fantastic figures address the epileptic in words, they insult him or command him to do something. It is probable that many crimes committed by these unfortunate beings, and for which some have been severely punished, were but the result of hallucinations of sight and hearing."

The physiognomy of a patient with cerebral epilepsy bears in a high degree the heavy, lost look and unmistakable stamp with which epilepsy brands its victims. The bloated and livid appearance, with the slight quivering of the face, the tremor of the limbs, and the moral perversion that springs out of the malady and leads to shameless vicious habits or intemperance, account for the frequent arrest and punishment as drunkards of individuals suffering at the time from cerebral epilepsy.

I have not the time to discuss the prevalence of religious and erotic ideas among the epileptic insane; but can only say that as regards their peculiar salacity, onanism is one of the early symptoms in nearly every case, instead of its cause; such indulgence does of course aggravate the fits, and when a neurotic hereditary tendency exists, acts of onanism often precede the onset of epilepsy.

In the *American Journal of Insanity*, of January, 1881, Dr. M. G. Echeverria thus speaks of feigned epilepsy. "Attentive examination of the pupils of an epileptic after seizures of *petit mal* or *grand mal*, discloses an alternate dilatation and contraction of the iris, persisting for over a minute after the patient's return to consciousness. This epileptic pupil is also conspicuous during the paroxysms of mania, at those moments when the patient suddenly becomes stupefied for a few seconds, staring with eyes wide open and fixed; it again betrays the dubious forms of psychical epilepsy and above all furnishes, even to those most inexperienced with the malady, a sure means of differentiating in a ready and easy way, true from feigned attacks. Again, if we cover with a handkerchief or

towel the nostrils and mouth of an epileptic at the moment that he is seized with a fit, this continues without change, because the obstacle thus put to breathing does not materially interfere with the asphyxia characteristic of the initial stage of the convulsive paroxysm, dependent upon tonic contraction of the thoracic muscles. This process, on the contrary, at once determines in the simulator, a *besoin de respirer*, with inevitable suffocation and struggles, which discloses the best studied imposture. It happens, however, with certain cases and mainly in incomplete seizures, that the impediment to respiration quickly suspends them, but then a phenomenon impossible to simulate always takes place; this phenomenon is the convulsive contraction and dilatation of the iris or the epileptic pupil, which as already stated may recur for more than a minute before it entirely disappears, and which becomes very remarkable when the eye is exposed to a bright light."

I have not the time to dwell on the medico-legal bearings of epileptic insanity, nor is it necessary for me to dwell upon the legal points raised in such cases as I have cited. My idea of responsibility is clearly defined in these lucid words of Dr. Bucknill: "Responsibility rests upon power, not upon knowledge, still less upon feeling. A man is responsible to do that which he can do, not that which he feels or knows it is right to do. If a man is reduced under thraldom to passion by disease of the brain, he loses moral freedom and responsibility, although his knowledge of right and wrong may remain intact." Having arrived at this conviction in reference to responsibility, and bearing in mind the reflex nature of the physical and mental phenomena connected with epilepsy, and our inability to avoid the effects of reflex action. it follows as a matter of course, that I should regard epileptics irresponsible for any criminal act they might commit under the influence of a paroxysm.

Dr. Ray says: "It has always been a question in legal medicine, within what period, before or after a fit, can an epileptic claim immunity for a criminal offense? In cases of this kind, bearing in mind the cases that have been recorded, are we

able to fix upon such a period? Is there any time when the epileptic can be considered as clearly free from the pathological effects of the disease? Can he ever commit a crime without being entitled to excuse? At any rate, the criminal acts of epileptics should ever be regarded by the expert with great distrust, and receive the most exhaustive investigation. I think he is bound to accept the single alternative, either that the patient has entirely recovered beyond the reach of the epileptic disease, or that he is in some degree of probability, still suffering from it. He is clearly entitled to every doubt." (*American Journal of Insanity*, Oct., 1870.)

The punishment of these epileptics may be legitimate under the statutory laws, though nothing less than inhuman, since it deems a man accountable for being visited with the most dreadful disease, the consequences of which he has no power to avoid or overcome.

Your teachers of Materia Medica and of Clinical Medicine have of course indicated to you at length, the remedies generally called for in cases of epilepsy; and holding the view that epilepsy differs from epileptic insanity more in degree than in kind, I need only call your attention to the remedies pointed out by your other teachers.

There are, however, a few remedies of which I may speak briefly.

Cupr. met. This remedy has rendered me good service in cases of epileptic mania, and is called for by the following symptoms:

He says words not intended; tendency toward apoplexy.

Afraid of every one who approaches him; shrinking away and trying to escape.

Unconquerable sadness; constant restlessness as if some misfortune were approaching him; fears he will lose his reason.

Incoherent delirious talk.

Attacks with savage malice, with proud bearing, and at times interrupted by clonic spasms.

Mania with biting; trying to tear things in pieces.

Frequent headache, and tendency of the head to fall forwards.

Nux vomica and *Ignatia* are remedies frequently required; the former when there is great irritability; maliciousness and anger, and vertigo at the time of the attack and the patient is apt to fall forward. The aura also is apt to begin at the epigastrium.

Ignatia should be thought of when the attacks are brought on from the shock of some mental anxiety and grief.

Sulphur is a remedy that will act well in those cases where there is some scrofulous taint; there will usually be some strong religious feelings present, and the patient is puffed up with a sense of his own importance. It is said that the Sulphur patient is apt to fall to the left side; I cannot say that I have confirmed this symptom, but we know that some patients always fall on one side, and others on the other; some on the back and others on the face, and we know that our remedies give us in their proving similar peculiar symptoms. Epilepsy has often been called the opprobrium of medicine from the difficulty we meet in treating it; and if we can receive help from any source it is our duty to avail ourselves of it no matter if the symptoms seem trivial. There is always some cause for every symptom observed in every patient, and for every symptom in the drug pathogenesis, and he will do his work most successfully, who reads both clearly, and adapts the one to the other.

Argent. nit. is a remedy that I am fond of using; not in the massive doses of the old school, which barely stop short of discoloring the skin, but in the usual doses of the homœopathic triturations. In my treatment of epilepsy, I generally use, at first, the lower triturations and gradually work up to the 6th, 12th, and 30th centesimal dilutions. Both *Argent. met.* and *Argent. nit.* are very valuable remedies; the latter I have alluded to elsewhere as being serviceable in melancholia. It has among its symptoms: disposition to fall sideways, with great dizziness. The patient is low spirited, easily discouraged and frightened.

The *Argentum met.* patient is more irascible, especially after

the attack, when he will have blind fits of rage. He is very restless and uneasy, going from place to place. The epileptic attacks are more apt to occur on entering a room from the open air; before midnight, and while slumbering in bed.

Bromide of potassium is a remedy you of course have heard recommended in epilepsy, and, though it does not cure many cases, it does keep away and diminish the frequency of the epileptic paroxysm, and as a consequence quiets the mental disturbance. But in order to do this, in order even to use it as a direct sedative, it is not needful nor safe to use the massive doses recommended by Dr. W. A. Hammond; doses of ten or fifteen grains will answer every purpose.

During the maniacal attacks, Belladonna, Hyoscyamus, Gelsemium, Ignatia and Stramonium will do good service when administered according to the indications for those remedies as pointed out in the chapter upon Mania; but too often you will find that all your efforts avail only to palliate and not to cure.

The remainder of this Lecture is mainly taken from a paper by Dr. Samuel Lilienthal entitled "*Epilepsia larvata*," published in the Transactions of the *N. Y. Hom. Med. Soc.*, 1878. His remarks upon the therapeutics of epilepsy are equally valuable in the present connection.

All allopathic authorities agree that Bromine and its salts are the palliatives, par excellence, in epilepsy, and Le Grand du Saulle affirms that the continued use of this drug will keep in check somatic as well as psychical epilepsy, though it will lead finally to dementia. There is no doubt that the Bromide exerts in time a lasting influence upon the intellectual faculties, but there is less harm done by it than by frequently repeated epileptic fits.

Our school is too apt to condemn the use of bromide of potassium in epilepsy, just as it does with quinine or calomel, instead of investigating closely whether the very cures made with them do not rest on our great law, Similia Similibus Curantur.

Hughes (*Pharmaco-dynamics*, 202) confesses that his own decision is against the bromidal treatment of epilepsy, save when

from their frequency the attacks are threatening life or reason, and when careful homœopathic medication has failed; but we may find in the phenomena of bromism indications for the use of this drug according to the law of similars. Hale (*Therapeutics*, 84) finds it indicated when the attacks are attended or caused by an unmistakable congestion of the brain. Falret (*Annales Med. Psychol.*, 1871) uses the bromide in inveterate cases which obstinately withstood other modes of treatment, and has found it to act favorably in those cases where the fits appear in full force, but at longer intervals; less beneficial in so-called lighter cases, consisting only of vertigo, of a momentary loss of consciousness, or where *mental troubles complicated the case. In mania epileptica the mania may cease, though the epileptic fits may continue for awhile.*

Hale mentions as the most prominent, unvarying symptoms of the brain and mind caused by this drug:

1. Profound melancholic delusions, either a religious depression or a feeling of moral deficiency.
2. Loss of memory; absent mindedness; he forgets how to talk; slowness of ideas.
3. Delusions of conspiracies against him.
4. Illusions.
5. Amnesic aphasia; he could pronounce any word he was told to, but could not speak otherwise.

Allen (*Mat. Med., Vol. V., p.* 265) gives us many symptoms which form a characteristic picture of psychic epilepsy. Thus we see that the sense of buoyancy, comfort and relief following its use, is a curative effect, which accompanies its exhibition for symptoms of mental depression, because it will rouse the sluggish mind to act more normally. Hence Le Grand du Saulle was right in recommending it for the mental trouble, even though it does not cure the organic disease, whatever that may be, in the brain. In recent cases it certainly holds out good prospects, especially as we find in the disease and in the drug, vertigo with confusion of the head; giddiness accompanied with actual stupor; hollow, fixed eyes; hallucinations of sound and sight, with or without mania, precede cerebral indifference, apathy and palsy; wearied,

anxious look (after a few days); the expression of hebetude becomes that of imbecility, and then that of idiocy (after toxic doses); great muscular debility.

How much of the praise due this salt belongs to the bromine and how much to the potassium it is hard to decide. Dr. W. A. Hammond uses the bromides of potassium, of sodium and of calcium, indiscriminately.

Some authorities recommend *nitrite of amyl* as a good remedy in epilepsy, be it psychic or somatic, and it may act beneficially when there is an aura epileptica, and by its timely use may prevent the attack. English and American authorities agree in recognizing that the inhalation of this agent arrests or anticipates the attacks in cases of epilepsy when an aura is present, but that it exercises very little influence on the disease itself.

We come now to more familiar ground in studying the action of *Belladonna* and *Atropine*. Let us study Hering's *Analytical Therapeutics* page 247, where he advises Belladonna for the following symptoms: Gradual loss of consciousness; starts at trifles and gets irritable; vexation; after emotions, after exertion of mind; smiling before attack; anxiety in præcordia during attack; timid feeling; screaming, laughing, singing, weeping; *tries to escape; wanders about*; restlessness and anxiety toward evening; *bites himself, tears his clothes, with mania and furor;* stupor and weak memory.

Hoyne (*Clinical Therapeutics*, p. 40) recommends Belladonna in epilepsy, when the convulsions commence in the arm; previous to the attack, congestion to the head, headache and throbbing in the temples. During the intervals, anxiety; fear of imaginary things; peevishness; vertigo, when at rest or in motion; burning and dryness of the eyes; red, hot face; restless sleep with twitching and jerking. Though Belladonna may not cure the case, it is at any rate good as a palliative in averting or removing the maniacal attack.

Atropia gives us the same restlessness and wandering mood in an aggravated form, as it becomes at last a desire to fight; but the movements are unsteady and the gait staggering; morbid sensitiveness to sounds and objects, followed by anæs-

thesia; clonic and tonic spasms; frightful phantasies; spectral illusions; now and then he seems to have almost a consciousness of what transpires about him, so that he returns an answer when addressed; mentally very sad, depressed, in constant anxiety and restlessness; fearful of misfortune, or angry; inclined to be alone; *unconscious and very irritable; incoherent quarreling*; slowness of intelligence; loss of memory; *unconsciousness and coma;* dizzy confusion of the head; pains in base of skull; frequent micturition.

Stramon. is the very opposite of Bellad., for, whereas in the latter the patient shuns the light, fears noises and is sensitive in the highest degree; the Stramon. patient fears darkness and hates to be alone; he acts like a coward, as we see him trembling and shaking; in his religious mania he shows exaggerated and ridiculous scruples of conscience, and his imagination is full of frightful hallucinations; he sees ghosts and hears voices back of his ears; he fears death and prays fervently; epilepsy from fright, attacks sudden, with screams, afterwards drowsy; gives warning of approach by premonitory symptoms; convulsions, especially opisthotonic, from bright, dazzling objects, water or touch; vertigo with reeling, as if drunk; very sensitive to noises which startle him; hot and red face, with cold hands and feet. We must not expect too much from remedies of this class. They cover all the symptoms of the case at the present moment, and give great relief; but probably for the eradication of the neurotic dyscrasia, if possible, our antipsorics take the lead.

Hering considers *Hyosc.* another palliative, especially where grief, homesickness, love-pangs, jealousy, are the cause of the attack, during which the patient laughs or screams. If I should give a picture of a Hyosc. patient, I would consider him the *egotistic fool;* hence madness, as if possessed by the devil; ungovernable passion and restlessness of the body; full of visionary phantoms; a great mental vivacity with laughing, dancing, screaming, singing obscene songs; incoherent talking; complete loss of consciousness; vertigo, with unsteady tottering gait, amounting even to faintness; wild, sparkling eyes; illusions of sight and of hearing; convulsions, with

frothing at the mouth, he falls suddenly to the ground; is unconscious, with cries and convulsions. There is a great deal of hysteria in the symptoms of henbane.

Ignat. has also grief as its characteristic, but it is *tears wept inwardly;* the patient is full of compassion for himself, and loves to brood over his misfortunes, be they real or imaginary; hence, fixed ideas; quiet, earnest melancholy; tender mood, with very clear consciousness; hurry of mind; wants to do everything rapidly; transient obscuration of the head; vertigo, with a feeling of swaying too and fro; zig-zag flickering before the eyes; noise is intolerable; jerking and twitching in various parts of the body; convulsions. Hahnemann has taught that Ignat. will only be indicated for a first attack of epilepsy brought on by some disagreeable emotion, and which assumes a threatening aspect on account of the length of time it lasts; but in *chronic epilepsy* Ignat. affords no permanent relief, any more than it is capable of doing so in other chronic diseases.

Œnanthe crocata ought to become one of our grandest remedies in latent as well as in fully developed epilepsy; and provings ought to be made with the higher potencies, as the symptoms so far gathered are mostly from toxic cases. Hale gives us: Disturbances of intellect, mad and furious as if drunk; *sudden and complete loss of consciousness;* madness with convulsions; he remembered nothing that had befallen him during his illness, nor what caused the sickness; violent vertigo, with falling and convulsions; coma after the convulsions; *sudden convulsions, trismus, biting of the tongue, followed by unconsciousness and oblivion of the circumstances.*

Agar. musc. gives us a true likeness of frenzied intoxication. The patient is furious and can hardly be restrained; he is fearless, menacing and mischievous; forming bold and revengeful projects; raging delirium alternating with religious excitement; increase of strength; sad mood and anxiety; confusion of mind; imbecility; sudden vertigo during the day; convulsions; most violent tonic and clonic spasms; jactitation of the muscles all over the body.

Hughes brings forward *Hydrocyanic acid* as *the* remedy in epilepsy. Allen gives us the following hints: Sudden loss of

consciousness and sensation; confusion of the head; vertigo and obscuration of sight; wild looking and bloated countenance; appeared like a man suffering from excess of drink; involuntary excretion of urine; noisy and agitated breathing; gurgling noise in the throat; general convulsions with loss of consciousness; the muscles of the face undergoing great distortion; her limbs becoming spasmodically extended and her head drawn down on her shoulders, followed by great weakness and lassitude. This is certainly as good a picture of an epileptic fit as we find in any pathological work, but still it may only suit those cases where the epilepsy is a *pure neurosis*, not based on any dyscrasia.

It is hardly to be wondered that an epileptic patient, suffering continually from the dread of an attack, should withdraw himself as much as possible from the outside world, and, brooding over his affliction, become melancholic. No other remedy leaves so decidedly this picture as Calc. carb. Here we read: Great anxiety and palpitation; frightened apprehensive mood as if some misfortune were about to happen to him, which he could in no way overcome; she feared that people would observe her confusion of mind; hence despondency, fretfulness, and irritability; obstinate, depressed mood; great weakness of memory; loss of consciousness with illusions; vertigo on suddenly turning the head; transient vertigo, mostly when sitting, less when standing, and still less when walking; convulsions; epilepsy; before the attack, sense of something running in the arm, or from pit of stomach down through the abdomen into the feet, caused by fright or by protracted intermittent suppression of chronic eruption, worse during solstice and full moon; nocturnal enuresis; in sleep he often chews and then swallows; screaming at night, with restless sleep, a stupid-like sleep from which he could not be awakened.

Kafka recommends Hepar sulph., for nocturnal epilepsy, inasmuch as we find among its symptoms: Oversensitiveness and irritability; sad mood for many hours; depressed, sad, apprehensive; fretful and obstinate; the slightest thing made him break out into the greatest violence; he could have killed some one without hesitation; great weakness of memory while

peevish; frequent short attacks of unconsciousness when walking in the open air; head confused; vertigo; enuresis nocturna; weariness in the morning after waking; dreams of danger, fright and anxiety.

Hering, in his *Analytical Therapeutics*, gives us the case of a man insane on religion, who had frequent attacks of epilepsy from childhood. *Psorin.*, in water, improved the mental condition and epilepsy.

Zincum has been already used by the old school for convulsions and hystero-epilepsy. Recently the bromide of zinc has gained an enviable reputation in the treatment of nervous disorders, especially of children and women, and it is now-a-days considered an anti-spasmodic of great power.

LECTURE XV.

General Paralysis of the Insane.

There is no form of disease complicated with insanity which is more ominous and presents less hope of recovery, than that known as General Paralysis of the Insane. We are now tolerably well acquainted with its history, symptoms, and invariably fatal termination, but are still ignorant of its remedial therapeutics, and for the most part its pathology remains obscure.

The names applied to it have been, Paralytic Insanity or Paralytic Dementia; General Incomplete or General Progressive Paralysis; Allgemeine progressive paralyse der Irren; Paralysie générale des aliénés; and finally, General Paralysis of the Insane, shortened to General Paralysis by English, and to General Paresis by a few American writers.

Mickle defines General Paralysis as "a disease of the nervous system, especially of the brain, marked clinically by (1), certain general disorders of motility, viz: ataxy and finally

paresis, usually following a certain order and course of development, and especially obvious in the apparatus of speech and of locomotion; also, but in less degree, by (2) sensory disorder or defect, and marked also, by (3) mental symptoms, which invariably tend to dementia, but in the earlier stages often consist in part of exaltation of feeling, or even expansive delirium. Fourthly, it is evidenced by certain organic changes in the encephalon and its tunics, often in the spinal cord and its membranes also, and, as some say, in certain sympathetic ganglia as well.

Most of the cases received into the hospitals for the insane are in the more advanced stages and prove rapidly fatal. It will be useful for you as general practitioners to acquaint yourselves with the signs by which the disease may be recognized in its earlier stages, that the patient may be warned of his danger before entering upon a period in which he can have little or no hope of recovery, or even of many years of life.

That this knowledge is needed is shown by Dr. A. E. Macdonald, the superintendent of the New York City Asylum for the Insane, who says, that "an examination of the certificates sent to the asylum by gentlemen in private practice shows that they recognized the true character of the disease in but three cases out of thirty-five in which they had made affidavits. Physicians connected with public institutions made a somewhat better showing, detecting the form of insanity in thirteen instances out of thirty-five."

"The diseased condition to which we apply the name general paralysis, is characterized by an association of mental and physical symptoms, of which progression is the prominent quality. A case fulfilling the requirements of its designation will be marked by progressive incomplete paralysis of the muscles extending gradually over those of the entire body; and by a mental failure, marked by extravagant delusions, progressive also, both in the degree of their grandeur, and in the variety of the subjects which they embrace."

Exceptions have been taken to the term general paralysis, as not being scientifically correct, for there is no real palsy,

but only a progressive impairment of the power of motion; and many writers, both in this country and in Europe, think that the term *paresis* better expresses the progressive nature of the disease.

At the International Congress of Mental Medicine held in Paris, in Aug. 1878, Dr. Jules Falret, Physician to the Bicêtre, speaking of this disease said, that since the time when general paralysis was first noticed, that is since 1822, its history has passed through many successive stages. At first it was studied among the insane alone, and was then considered as a mere complication or termination of mental disease. In fact, the work of Calmeil, published in 1826, was entitled, "*General incomplete paralysis as noticed among the insane.*"

Bayle, it is true, had given to the disease, in 1822, the name of chronic meningitis, and, separating it from the other forms of mental disease, considered it as a special affection.

At a later period two opinions were current among physicians; one school believing that there were two varieties of general paralysis, one with, and the other without, delirium; another held that such a distinction could only be made in the earlier stages of the disorder, and that all cases of general paralysis finished in insanity, or paralytic dementia. Thus general progressive paralysis came to be regarded as a disease special and distinct; differing from insanity, properly so called; and holding an intermediate place between the ordinary cerebral affections and the various forms of mental alienation.

Dr. G. Mackenzie Bacon thus writes on its nosological position, he says: "General paralysis has some peculiarities in its history and symptoms which may serve to distinguish it from other forms of disease, as follows: It is not hereditary. It occurs but seldom among women. Certain mental changes are always associated with it, and generally precede the paralytic symptoms. In most cases epileptiform attacks affecting one side, or one limb and half the face occur during the second stage. A curious amelioration takes place after a certain period when brought early under proper treatment. The

optimism, the often furious character of the mania, the destructive tendencies, and the mixture of elation and confusion of mind producing the most ludicrous contradictions, are such as are not seen in other forms of brain disease." He also says: "These phases occur so constantly, and in so many instances, that I do not see how to doubt that there is such a disease, whatever its name, and that it differs from others in which patients fade away gradually and die paralyzed; it seems to me that the history, symptoms and pathology point to a disease different from any other, and that the symptoms above alluded to almost suffice to answer the question, what is meant by the term general paralysis?"

According to Dr. Lemaëstre, general paralysis, although a pathological entity, may put on all the forms of insanity:

1st.—The maniacal form, the most common. In this form the paralytic symptoms are associated with that group of peculiar mental symptoms so frequently met with; which latter may range from simple content with self, to the most pronounced delirium of grandeur and riches and excessive muscular activity.

2d.—The melancholic form, with its hypochondriacal or melancholic depression extending even to the most obstinate attempts at suicide, persistent refusal of food, and extreme physical inertia; a marked contrast to the preceding form.

3d.—The epileptic form. I do not refer to the symptoms of cerebral congestion with convulsive paroxysms such as we often notice in the course of general paralysis, especially in the maniacal form, but to those instances where the attack is ushered in by epileptic paroxysms, which form almost the only symptoms for some time, after which the disease runs its usual course.

4th.—General paralysis without delirium, analogous to those cases of insanity called *sine delirio*, in which delirium is almost entirely wanting.

5th.—General paralysis complicated with hemiplegia or paraplegia; and with or without ataxy.

6th.—General paralysis progressing rapidly with typhoid symptoms, also called acute delirium.

7th.—General paralysis of a slow progressive character, especially susceptible to more or less prolonged remissions.

8th.—Dementia paralytica à double forme.

The symptoms of general paralysis are psychical and motor, and it is a somewhat important though disputed question which of the two appear first. Most observers think that the cases begin by some unusual and undue irritability of mind, others believe that the motor disturbance is first. Dr. J. Crichton Browne says: "The psychical appear first in order of time. Soon after the psychical symptoms have declared themselves, the motor symptoms appear, and, subsequently they advance together, though often at very different rates and in very varied combinations."

Dr. John P. Gray, Superintendent of the Utica Asylum, holds the opposite view, saying: "I believe that the paresis precedes the insanity, the latter is the result of the morbid changes. I have observed paretics when there was no insanity, no delusions, only that impairment or enfeeblement which is often noticed in the later stages of chronic meningitis and softening. In one case now in the asylum the symptoms of paresis long preceded insanity, and the latter did not develop until nearly two years after."

Although my own experience with the disease is somewhat limited, I have not as yet seen a case where the motor disturbance preceded the mental; though I have seen cases where they seemed to arise simultaneously, but in deciding this point it is well to bear in mind the following remark of Prof. Maudsley: "Before asserting in a particular case that there is no evidence of paralysis, it will be well to observe the patient when emotionally excited, or after a sleepless night, when there may be exhibited a tremulousness of speech which is not at all visible when he is perfectly calm and collected."

The mental and physical symptoms are thus classed by Dr. J. Crichton Browne.

Mental Symptoms.

1. General restlessness and unsteadiness of mind with impairment of attention; alternating with apathy and drowsiness.

2. A change in disposition and temper, and a general loss of self-restraint; at first as regards trivial social observances, and then as regards general conduct.

3. Impairment of the reflective powers, so that there is no logical and systematic development of thought.

4. General exaltation of thought, with a profusion of remembered images and ideas, and numerous extravagant ideas.

5. Failure of memory and forgetfulness, at first of words and then of events.

6. Delirious conceptions, and the transformation of desires into beliefs, these being generally connected with personal greatness and power.

7. Hallucinations of the senses, in which remembered sense impressions are so vivid and intense as to spread to the periphery.

8. Maniacal restlessness and excitement, in which present impulses and feelings instantly pass over into action.

9. Increased mental weakness, with the incoherent and fragmentary repetition of the false ideas previously entertained.

10. Failure of the senses, with more marked impairment of memory.

11. Complete fatuity, passing into coma and death.

Motor Symptoms.

1. Persistent contraction of the occipito-frontalis muscle, and some dilatation of the pupils, causing the eyes to be widely opened, and the forehead wrinkled, thus giving an expression of surprised attention to the face.

2. Persistent contraction and frequent tremors of the zygomatic muscles, giving a pleased and benevolent expression to the countenance.

3. Slight general muscular restlessness and unsteadiness.

4. Impairment of the power of executing fine and detailed movements, so that manipulative skill is lost while movements *en masse* are still well performed.

5. Fibrillar tremors of the tongue, and some loss of control over its movements, so that it is protruded with difficulty; is rolled about when protruded, and is suddenly withdrawn.

6. Twitchings of the nostrils and upper lip with frequent tremor of the latter.

7. Impairment of articulation which is thick and wanting in distinctness.

8. An alteration in the voice, as well as thickness and hesitancy in speech.

9. Loss of control over the combined movements of the hand and wrist, so that the handwriting greatly deteriorates.

10. Changes in the pupils, which at first are irregularly contracted, and then become irregularly dilated.

11. An alteration in gait, which becomes unsteady, the more complex movements of the thigh, leg and foot, and the balancing of the pelvis on the hip-joints being performed with difficulty.

12. General muscular agitation and restlessness.

13. Gradual loss of power in the muscles of the face, tongue, neck and limbs.

14. Spasmodic contraction of the masseter muscles, causing grinding of the teeth.

15. Convulsive seizures, most marked on one side of the body, followed by transitory hemiplegia.

16. Loss of control over the sphincters.

17. Complete prostration of muscular strength and helplessness, speechlessness and difficult deglutition.

18. Contraction of muscles of the limbs, and paralysis of the muscles of respiration.

Dr. Mickle in his late work on General Paralysis says: "Sometimes three, sometimes four stages are described. The division into four stages is that of 1st, a stage of mental alteration; 2d, a stage of decided mental alienation, often with active mental symptoms; 3d, a stage of chronic mental disorder or failure, during part of which there is generally a remission of at least the active mental symptoms of the preceding stage and, 4th, the stage in which mental weakness has advanced through confirmed dementia towards amentia, and in which also the primary ataxy and subsequent paresis have given place to a general complete helplessness with impaired sensibility, and in which, therefore, there is virtually a com-

plete prostration of the mental and motor powers and, we may add, of the nutritive also.

The patient attacked with general paralysis is usually a man of middle age, of active and vigorous habits, actively engaged in business or the pursuit of pleasure; given very probably to high living, but preserving among his associates the reputation of being a keen and shrewd business man. Suddenly and without any apparent cause a change may be seen in his habits and demeanor; or there may be a period of melancholy and depression, with moroseness and irritability lasting for a variable length of time, and very possibly passing unnoticed; then the man is seen to be flighty. He neglects his business, or shows a speculative tendency and a recklessness that are new to him; he makes useless purchases or contracts, and bargains that must necessarily be disadvantageous to him; he takes little notice of his family, displays great restlessness and anxiety, and is disposed to wander about; he gives frequent contradictory orders, and is very angry if not obeyed at once; he becomes careless in his dress and personal appearance, and neglects all habits of order and neatness; his mind is filled with the most visionary projects, and he has boundless ideas of his own wealth and importance. In his personal life, if he has been correct before, he now becomes dissipated and fast; if he has been self-indulgent, he seeks new and graver dissipations.

With it all there is an air of self-esteem, of physical and mental well-being, a tendency to "loudness" of manners and dress; to ostentatious display coupled with unusual and unnecessary generosity. The prevailing tone is one of good humor, the desire is to have a good time, and to share it with as many others as possible. A little further progress in this direction and we find open indecencies of conduct, petty thefts, violence towards those who have refused to join in the proposed good time; and with all, a decided failure of memory covering actions and events of very recent occurrence. In the meantime physical symptoms have become apparent, detected at first, if at all, only by those familiar with the disease, but gradually forcing themselves upon the attention of ordinary observers.

This stage is thus epitomized by Dr. Sankey. He says: "The following may serve as a summary of the mental symptoms, the occurrence of which should direct our attention to the first indications of motor paralysis.

"1. The various *actions*, showing the conditions of the mind, as a disposition to wander from home; to rid himself of clothing; the commission of petty thefts; disposition to extravagance; neglect of duties; general restlessness, shown by driving about, or going from place to place, or even by an inordinate amount of letter writing.

"2. The *ideas* expressed; as notions of great personal importance, great connections, possession of wealth, acquisition of honors, or by utopian schemes, and

"3. The alteration in the feelings or moral affections, especially a change from religion to profanity."

I have alluded to the boundless ideas of his own wealth and importance; but these are not such as we meet in melancholia or monomania, for these latter preserve at least the appearance of plausibility, while the exaggerated ideas of the general paralytic are utterly inconsistent with each other. A melancholic may think himself a lord or a duke; or that his legs are made of glass, but his speech and conduct will bear some relation to his fancied condition; a paretic, however, will be emperor, king, pope and Creator all at once; he can build a city in a day, or defeat an army single handed. No person can be named, of any note in the world, but the paretic has been instrumental in his attainment of fame and position; he is also possessor of countless millions which he dispenses with a lavish hand; he confers numberless titles of nobility and there is no favor however extravagant or absurd which he is unwilling or unable to grant. Being very forgetful, his delusions are not of a fixed character, but change from day to day, though always retaining their general tone of grandeur and ambition.

Dr. Mickle says: "Under the heading of prodromes are often placed symptoms and signs that really aid to constitute the first period of general paralysis. Yet in certain cases some of these so long antedate the affection that they may be viewed

as prodromal. To these, and to others, reference is now made, and they are of the most varied kind.

"Some embarrassment of speech is occasionally the very first sign noticed, and Dr. Austin speaks of extreme contraction of the pupils, and of a fixed or unsymmetrical condition of the pupils as being prodromal.

"Sometimes the prodromata consist of seizures of cerebral congestion, or of mere palpitation, flushing and heat of the face and head, with aural tinnitus, or of convulsive seizures of an obscure nature, also of severe headaches and obstinate neuralgias.

"Also we have mental prodromata. If the purely intellectual powers are involved there is a species of inattention. Repeatedly may the patient evince the same particular forgetfulness or blunder; or the conducting of duty or of business may become irregular, fitful or ill-judged. There may be an expansive, busy, speculative frame of mind; a restless, fitful, yet energetic, application to business, with perhaps some loss of the usual foresight and acumen; a rashness of action and a brusqueness of manner, and a forced and noisy laugh, with unnatural loudness of conversation. To these warnings may be added that of the danger signal, insomnia.

"Or the patient may be depressed, dull, worried about trifles, yet angry if opposed; or full of vague fears and hypochondriacal fancies; and, indeed, languor, ennui, and melancholy have been viewed by some as the most frequent prodromes.

"Or, again, with forgetfulness and inattention to duties, there may be progressive mental confusion and stupidity, with or without drowsiness and heaviness of head. Memory fails, especially for recent events, and recent mental acquisitions, and the power of attention progressively lessens."

Baillarger speaks of a loss of the sexual instinct and desire, and, on the other hand, there may be sexual excess.

Brierre de Boismont draws special attention to perversion of the moral and affective faculties in the prodromal period of general paralysis. Even several years beforehand there may be unwonted acts of indelicacy, impropriety or debauchery,

and with these there may be a placid apathy and an utter indolence. He also states that great irritability may occur two or three years before the outbreak, or menace of suicide, or failure of the usual determination of character, as well as the failure of memory, or of the clearness or precision of judgment already referred to.

Dr. Blandford says: "You are to recollect that general paralysis is to be suspected, if we hear a lunatic boasting of his grandeur, strength and riches, especially if his delusions on this point are altogether wild and beyond the bounds of possibility. No proof of the absurdity of his ideas suffices to convince him for a moment. For instance, the patient claims to be heavier than the world, and no one can lift him; we invite him to lie down, and lift him with care, but he explains our success by the buoyancy of the angels that are in him."

Having spoken of some of the leading mental symptoms found in this disorder, let us now consider some of the physical changes which are equally characteristic.

Dr. J. Crichton Browne says: "The earliest physical symptom is a trembling at the corners of the mouth, and at the outer corners of the eyes. Constant tremulous agitation of the palpebral and great zygomatic muscles is pathognomonic of the earlier stages of general paralysis. The countenance has a pleased and benevolent expression. As the disease advances, other muscles become involved, but, until complete fatuity is reached, the prevailing expression is that of feeble benevolence."

The prominent feature of these changes is a loss of cöordinating power in the voluntary muscles progressing steadily toward their complete paralysis. This is recognized as affecting those most delicate in function first. Our attention will be called to a slight hesitancy in speech; and, looking at the lips and protruded tongue, we shall find in the former a slight tremor, with an inability to keep them firmly closed, and in the latter a convulsive trembling, with an inclination to return by a sudden involuntary jerk into the mouth. This is often evident long before any difficulty can be observed in the movement of the limbs. This peculiar articulation is described

by Calmeil as an effort in speaking; the patient uttering his words tardily, and with a sort of mumbling and stammering like that of a person intoxicated; a halting at certain words, and a slurring over of others, but if he is desired to put out his tongue, he does it without any perceptible deviation. He feels, however, that something is amiss with his speech, and endeavors to right it, enunciating his words slowly and carefully; and, for a time succeeding, but soon lapsing again and making especially bad work of it when vowel sounds are few, and those syllables frequent which have k, l, m, n, r, and e in them. This is due to the fact that the hypoglossal is involved in the progressing paralysis. The appearance of the whole face alters too; it has a greasy, flabby look, and the facial folds are relaxed, perhaps unequally, and in time obliterated. The mouth is drawn down at the corners spasmodically, owing to partial paralysis of the facial nerve; the head is moved or nodded by an effort to extricate a particular labial; and, while speaking, the lips, especially the upper one, will be seen to twitch or be affected with an undulatory or quivering motion, and the chin purses slightly. This peculiar impediment in the speech is one of the most characteristic of the physical symptoms, and, in connection with the exalted ideas, is conclusive evidence of the presence of the disease.

Quite distinctive also is the appearance of the eye, giving changes so constant and so uniform, that they furnish one of our most reliable aids to diagnosis. At first there is contraction of the pupils, but later there is dilatation, usually *unequal;* and in this inequality lies the value of the evidence. Often added to the inequality, there is also irregularity of the pupil, from the edge of the iris being folded in, and there may be ptosis. Irresponsiveness to light on the part of the pupil is characteristic in nearly all paretic cases. "The patient is unable to control in full the motion of the eye, owing to failure on the part of the motor oculi. There is a certain restlessness and unsteadiness in moving the eye, which, to the careful observer, is quite discernible."

In this early stage maniacal excitement may mask the motor signs, although in the later stages similar maniacal ex-

citement often only serves to heighten the manifest impairment of speech.

Dr. Mickle also observes, of this earlier stage, that "usually the gait is still fairly free, but in other cases it is somewhat awkward, the steps are long and slightly irregular, and may be attended with awkwardness. A decidedly *tabic* gait may be observed, though this is exceptional. Trembling movments in the limbs, varying in degree and frequency, also attest the ataxia. Now the gait, whether in this or other stages of general paralysis, varies with the relative proportions of ataxy and paresis present. I say ataxy *and* paresis, for although the latter is perhaps not absolutely essential, as is the former, yet is it almost invariably present. When the special *ataxy* of the affection is relatively prominent, the gait is more or less jerky, irregular, the steps are long, the limbs thrown forward, the movements apt to be hurried, and made with unnecessary efforts, the lines of march swerving and crooked. On the other hand, when *paresis* relatively predominates, the gait is slow, heavy and unsteady, and the widely separated feet readily trip at any inequality or obstacle on the ground. In advanced cases an unsafe tottering follows upon any attempt to turn. This slow and helpless gait, together with the bended, stooping frame, imprint an aspect of premature senility."

As the disease progresses, derangement of the motor powers becomes more prominent. The muscles themselves are not affected, nor is there much loss of strength, except in the latest stage; but we find great loss in the co-ordinating power, especially in the lower limbs, but in the upper also, though in a less degree. This is shown in the imperfect attempts at sewing, playing the piano, writing, or in any other operation requiring manual dexterity. If the elbow is bent and the fingers extended, they cannot be held steadily, but their tips will tremble and jerk convulsively. Hence the handwriting is altered and becomes scratchy and irregular; some letters are larger than others, and the lines upon the paper are not followed. The mental change makes itself apparent in the composition of the letters, so that their perusal will doubly

indicate the condition of the writer. The change will be similar to that noticed in the speech—a tendency to omit words or parts of sentences, to mingle topics together, and especially to repeat phrases, and to reassert some prominent idea, until the meaning becomes unintelligible, and this incoherence progresses with the disease.

In the lower limbs, as has been intimated, the want of co-ordinating power produces changes of gait. This is peculiar, but like the other characteristic symptoms of the diseases, viz. the impaired articulation and the exalted ideas, is said not to be invariably present. There is at first a little difficulty in getting started promptly and easily; a little tendency to make a wider circle around corners, and a decided difficulty in changing direction quickly and avoiding collisions. As these difficulties progress the gait becomes yet more abnormal. There is a tremulous unsteady step, the patient separates his feet and stretches his hands as if afraid of toppling over, and he either drags his feet after him as in the ordinary forms of paralysis, or brings his feet down with a rap as in locomotor ataxy. As these troubles increase it becomes altogether too much of a tax upon his attention to keep his equilibrium, and to make progress, to permit of his turning it at the same to anything else; and, if he be addressed, he will stop and steady himself upon his legs before answering, even if his questioner is walking with him.

Dr. Sankey thus describes the gait: "The paretic patient walks as if he had to direct the whole of his muscles by distinct efforts, and as though he had lost the whole of his acquired automatic movements. He walks therefore, without looking to the right or left; and often there is an appearance or expression of having to poise his head carefully, or to keep his own centre of gravity carefully balanced. At the same time there is an evident absence of elasticity or spring in the step; the foot is placed flat upon the ground; the legs are kept somewhat apart as though to increase the base of support for the superincumbent weight, and the patient has a straddling gait; there is no balancing or throwing the centre on one or the other limb."

Long before this extreme muscular disturbance has been reached, the delusions of which I have spoken will be fully developed. They are, like delusions of all kinds, primarily connected with the patient personally; if extended to others it must be secondarily; as for instance, because a patient imagines himself to hold a certain rank, he must extend his imagination to recognize some other and inferior rank in those around him. When he is placed in an asylum, it becomes at once a palace or a country residence, and those around him are courtiers or servants. In some cases the delusions are said to be of a sad and depressing character, but this is not usual.

Naturally the exalted delusions have reference, first, to the patient's person, his health, and powers of endurance and actions; thus he always thinks himself robust and hearty. His answer to your inquiry as to his condition is always a positive assertion of his well being, although he may stagger at every step, and this continues long after his advancing disease has deprived him of the strength to leave his bed, and almost of the power to articulate at all; and the phrase, "first rate," with which he answers inquiries after his health, is of itself almost sufficient proof of the presence of the disease.

Constant hopefulness is another characteristic symptom. Although confined in an asylum, he is generally contented, but at times complains that he is shut up through a conspiracy of enemies interested in his detention. He displays great anxiety to see his friends on important business and writes frequent letters. His anxiety about the non-arrival of friends, relatives or letters is easily allayed, and he consents as a particular favor to the doctor, to postpone his departure until "*to-morrow*," but, his memory possessing no cumulative force, the same process is daily repeated, and the *to-morrow* never comes.

As a sequel to belief in his vigorous health, comes an equally decided estimate of his bodily powers and prowess; he is the greatest pugilist, pedestrian, oarsman, ever known. "He will spend hours in training himself for a boat race; totter up and down the ward in the firm belief that he is walking a thousand miles in a thousand hours, and give you an earnest in-

vitation to test his skill as a boxer." But his powers and skill are not confined to mere animal superiority,—mentally he is the most brilliant of men. There is no language with which he is unfamiliar; no branch of study in which he is not proficient; no philosophical experiment which he has not successfully undertaken; no discovery which is not his own. And the legitimate rewards of such perfection of body and mind have not failed to follow him; renown, wealth, honors, are his without measure or number; he is not king of a single country but emperor of the whole world; he is not as rich as some one else, but richer than every one else put together. One patient under my care had invented a new needle-gun, and was under contract with Louis Napoleon, single-handed, to compel the Prussians to give up the Rhine provinces.

Delusions of this extent are not reached all at once. Sometimes they come with the progression which is so marked in the other features of the disease.

You will observe more tolerance of the delusions of others, even amounting to a belief in them, among paretics, than in the insane of other classes. "Ordinarily an insane man will recognize wherein his neighbor is deficient in sense, while strenuously maintaining his own soundness, but a paretic's delusions are extensive enough to embrace all mankind. When one of them has given a summary of his wealth, the others, if appealed to, will often endorse his statements, but always adding that wealthy as he is, they are still more so." Prominent differences between the delusions of the general paretic and those of the sufferer from some other form of insanity, are seen in their greater extravagance, their want of permanency, and in the absence of sequence and co-ordination.

The characteristic differences between the delusions of ambition and grandeur manifested by the general paralytic and those found in ordinary "ambitious mania," the "Megalomanie" of the French writers are thus described by Dr. Drouet in "*Les Annales Medico-Psychologiques.*" "Ambitious mania, properly so-called, that is to say the chronic form of mania marked by a systematized ambition may, as a rule, be

easily distinguished from general paralysis. While in this latter we find a childish contentment, incoherent and inconsistent ideas of greatness, progressive and rapid signs of intellectual decay, and characteristic disturbances of motion, we find nothing similar in ambitious mania. These patients logically follow out their false conceptions, and often display, to account for their surroundings, much sound and shrewd reasonings based upon their false premises. Their delirium is not as general nor changeable as the general paretic's, the latter of whom can say the most contradictory things in a short time, but it presents a remarkable fixity and steadfastness of ideas. There is no motor disturbance, and if dementia sets in, it is at a later period, as in other cases of mania."

Most delusions in the maniac and melancholic are as to things which might possibly exist or occur. They are comparatively fixed and persistent, and starting from false premises, they have thereafter a natural and logical connection. But the delusions of the paretic are absurd and impossible, they vary constantly, and they are utterly contradictory and incompatible. The former too, will maintain the truth of their delusions with keenness and shrewdness of argument, and will endeavor to explain differences, and reconcile them with facts. But the paretic does not detect incongruities and will not argue, but simply re-assert.

During all this time the patient is generally possessed of a keen appetite and sleeps soundly, and it is not uncommon for him to gain considerably in weight. The mental change increases, sometimes bringing the patient into a condition of complete dementia, but more frequently preserving the more active character, of which these delusions give evidence, until the end.

There is often in the second stage of the disease a paroxysm of maniacal violence of varying duration, which is followed by a marked amelioration of all the symptoms, both mental and physical; this remission is so evident that the friends of the patient are often deluded by the hope that he may entirely recover; this improvement is, however, temporary, and the patient soon relapses into the third stage, that of fatuity.

Jules Falret says: "Formerly all writers believed that the disease once begun, progressed steadily without interruption till death. But to-day we know that anywhere in its course remissions may arise of varying duration, and that these remissions not only make a notable difference in the degree of intensity of the symptoms, but may even be so well marked as to simulate recovery. Baillarger, for example, is led by the existence of these remissions to believe that the disease must be curable. These remissions may last for months, or even in specially favorable cases for years, and are of great importance, especially in a medico-legal point of view."

As the disease progresses, paresis of the excito-motor system becomes more marked, and the patient can hardly walk alone, falls against the furniture, or crawls about the floor, picking up splinters or bits of paper. He also loses control over the sphincter muscles and becomes filthy.

The appetite is very voracious, and the paralytic will cram great masses of food into his mouth, but owing to loss of excitability in the muscles of deglutition, even soft food is swallowed with difficulty, and becomes impacted in the pharynx or larynx, causing frequent and sometimes fatal choking. Grinding of the teeth may be noticed, and there is a glutinous secretion in the corners of the eyes. The mental condition rapidly deteriorates, memory is almost entirely destroyed, and the patient requires the same care as in advanced dementia.

Physically these changes progress until death is reached by simple exhaustion, due to the increasing muscular paralysis, unless it occur sooner, as it often does, from intercurrent diseases, pulmonary especially, or from the convulsive seizures which are another characteristic of the disease, and which will now be spoken of.

A large proportion of those suffering from general paralysis are, during some one or more of the stages of its progress, attacked by fits simulating epilepsy, occurring at intervals, and leaving behind them only slight and transient disturbances of the intellect, and so similar to the ordinary attacks of epilepsy that even experienced physicians are often deceived. A remarkable case of this sort was that of the Count Chorinsky

in Germany, concerning whom, Dr. Morel, of Saint-Yon, gave an opinion before the court at Munich, which although contradicted by the German physicians, was confirmed by the result. He considered him as an insane man suffering with *epilepsia larvalis*, and, further observation as well as the autopsy showed that the patient having first presented the symptoms of that species of epilepsy, afterwards traversed the successive stages of a marked case of general paralysis.

The late Dr. Skae thus writes: "These epileptiform or congestive attacks vary much in frequency and degree in different cases. In some they are very frequent, occurring every three or four weeks; in others they are very rare, occurring only once or twice in the whole course of the malady. In some cases they are very slight, the patient complains of pains in the head and confusion of ideas; his face becomes very red and congested; he looks stupid, and perhaps cries without any cause, and, after a few hours in bed, he recovers his usual composure. In other cases, with more or less congestion of the countenance and confusion of thought, there is temporary loss of speech, lasting only a few minutes, or passing off after an hour's sleep. In the more completely developed attacks of this affection there is a total loss of consciousness, with convulsive twitchings of the face and limbs, varying from one or two slight attacks to repeated and very violent convulsions lasting for hours, and accompanied with great venous congestion of the scalp and face. These epileptiform attacks are very characteristic, and have been regarded by some writers as essential features, and diagnostic only of this disease."

Dr. Harrington Tuke and some others deny that general paralysis ever runs its whole course without producing these epileptiform attacks; but my experience leads me to take exception to this view. In cases under my care, such attacks have as a rule been met with, but I have observed at least one case, from the beginning to the end, without noticing the slightest evidence of them. In some patients death may result as a consequence of these attacks, but in hospital practice they readily yield for the time to the action of remedies. The fits are undoubtedly owing to wasting of the brain substance, and are, with some, the first *proof* of the disease.

For diagnostic purposes it is important to distinguish between these epileptiform attacks, and the fits caused by true epilepsy complicated with paralysis, or even simple monomania. The distinguishing points are thus given by Dr. H. Tuke: "The tongue is seldom wounded in paralytic insanity, and the tendency to sleep, after an epileptic fit, is very different from the entire stupor which follows the fit of general paralysis. The convulsions, too, in epilepsy are more universal, affecting the whole body."

Epileptic attacks may occur for years without seriously damaging the intellectual faculties, but in a patient who is affected with fits in combination with general paralysis, each seizure is, as a rule, followed by an exacerbation of the mental derangement, which, from the first, is out of proportion to the disorganization indicated by the fits alone. The difference in the mental symptoms is also well marked, and is thus clearly and graphically described by Delasiauve in the Journal of Mental Medicine: "The epileptic paretic seldom exhibits the moral inconsistency and vague ambitious delirium so frequently displayed by ordinary paretics; indeed, he does not let his faculties ramble; his judgment is slow and confused, his memory weak and obscure, the expression of his ideas dull and laborious, like the articulation of his speech; but, nevertheless, preserving throughout sufficient conception to accomplish the ordinary acts of his life, and being not insane in the ordinary acceptation of the word. What prevails with him is the inability to act; an intellectual confusion, rather than the incoherence or rambling of thought. No matter how deep the deterioration, the cases of general paresis due to epilepsy display always such an identical physiognomy that it is impossible to mistake them for those acknowledging some other source."

During the past few years the history of general paralysis has entered upon a new phase. Up to that time the endeavor had always been made to group many widely different conditions under the comprehensive but vague term of general paralysis. Now, however, there is a disposition to recognize the fact that clinical experience shows many varieties, all, per-

haps, having the same general pathological condition as a basis.

In the classification of Dr. Lemaestre before alluded to, we find first mentioned the maniacal form, which seems to deserve more than a passing mention. When general paralysis presents itself under the maniacal form, with violent excitement, mixed and contradictory ideas of grandeur and importance, excessive disorder in act and slight impediment in speech, we may call it an attack of congestive mania. It often happens that after six or eight months the excessive excitement decreases and gives way to an almost complete return of reason. Those persons who may have presented all the characteristic signs of the first stage of general paralysis, realize that they have been delirious, abandon their false conceptions and return, to all appearance, to reason. Most of them, it is true, give signs of intellectual weakening in spite of the cessation of the delirium, but many are able to resume to a great extent the use of their intellectual faculties. Having in mind such cases as these, M. Baillarger divides general paralysis into two classes. 1. Those of congestive mania, susceptible of cure, but having a general tendency to pass into well developed general paralysis; and 2. Paralytic dementia always incurable and progressing steadily and regularly toward more and more marked dementia and death.

Referring to the first of these two classes, Dr. Jules Falret says: "These patients resemble in many points the general paralytics of our asylums, and differ from them in others. They also resemble those persons affected with successive cerebral congestions of softening of the brain. They experience during many years light and congestive attacks of short duration, leaving behind hesitancy of speech, symptoms of incomplete paralysis, and a more or less well marked impairment of intellect, but in many instances without well marked delirium; and they can survive thus many years, slowly advancing toward simple dementia, without presenting some other of the symptoms so generally met with in our asylum cases."

Another form which it is well to mention in a description of general paralysis, is the melancholic variety. Not only is

melancholia observed as a first stage in the ordinary or expansive form of general paralysis, but it may occur anywhere in the course of the disease. Baillarger was the first to call attention in a special manner to this point.

This melancholia consists not only in ideas of being ruined, poisoned and persecuted, but in special delirious conceptions that Baillarger calls hypochondriacal, and can, perhaps, be more precisely indicated by saying that they bear some relation to changes in self. Such patients believe, for example, that they are dead, or have lost their personality, or that portions of their body have been changed; they have no mouth or intestines; the head is of wood, the jaw of iron and the limbs of lead. This point is to-day well established, and this special condition may arise at any period in the course of the disease, and even in some cases the states of depression and expansive ambition may alternate in a regular manner.

Almost always the melancholy delirium in general paralysis is coincident with lesions of nutrition, and with subacute attacks. It would seem then that the chronic meningitis which is present in this affection takes on for the time a subacute form which manifests itself in the general health.

These patients rapidly grow thin and almost cachectic. They often refuse food, not only from their mistaken ideas of being poisoned, or their belief that they have no mouth or stomach, but also from the generally disordered state of nutrition which gives them an absolute disgust for all nourishment, an unconquerable and instinctive aversion for all food, especially meat, similar to that met with in the cachectic states of cancer or diabetes.

We also meet with an increased bodily temperature and slowness of pulse as in the meningitis of children or adults, together with a higher temperature of the top of the head than of the other parts of the body. There is also a great increase in the flow of urine, without sugar, but with an excess of urea. In such cases the refusal to take food may be very persistent, requiring the use of the feeding tube and in some extreme cases death may ensue. On the other hand after a few months have elapsed a change for the better may take place, the

patient regain strength and flesh, and even give rise to hopes of recovery.

Cases of general paralysis without delirium, are said to occur occasionally in ordinary hospital and private practice.

For many years these patients who present all the physical symptoms of progressive and incomplete general paralysis seem to be free from delirium. If their intellect is below par, as is common, it is not very noticeable, and the paralytic phenomena are much more prominent. These latter are even more marked than in most of our asylum cases; there is the usual hesitancy in speech, trembling of the limbs, difficulty in walking and prehension, unequal dilatation of the pupils, etc. These persons may live for many years in ordinary hospitals, without being sent to an insane asylum, if indeed they are sent at all. They become demented only after a long time and differ in many respects from the general paralytics in our asylums; but at the same time there are enough points of resemblance to make us refer them to the same pathological conditions as a cause.

The variety of general paralysis known as "*double forme*" has been almost unnoticed until now; indeed I find very little said about it in any of the standard works, I shall therefore call your attention to the description given by Dr. Lemaestre at the International Medical Congress held in Paris, in 1878, he says:

"General Paralysis à double forme presents features peculiar to itself, viz.: the passage from one form to the other without any remission or interval between. The two forms are different as to symptoms, though the disease remains the same.

"In the ordinary maniacal form of paralytic dementia, we sometimes observe, after a paroxysm of excitement, perhaps violent and prolonged, a condition of moral depression together with muscular prostration, sometimes very marked.

"This period of depression lasts for a varying period, and afterwards there may occur a fresh remission in the mental symptoms and even a limited improvement in the paralysis.

"In the paralysis à double forme, however, no such remis-

sion takes place, and the two stages pass rapidly and directly the one into the other.

"Case.—Mr. D., banker, bachelor, aged 33 years, has led a very active life, equally divided between pleasure and intellectual work. He states that he has had syphilis, of which none of the ordinary symptoms remain, and was salivated by mercury.

"About a year ago the initiatory symptoms of general paralysis appeared, such as frequent headaches, change in habits and character, irritability; less refined appearance, greater freedom of speech, handwriting less distinct, forgetfulness of hours and dates, finally hazardous speculations leading him to bankruptcy.

"After several voyages, vainly undertaken in the hope of staying the progress of the disease, he entered two hospitals, and finally brought up at St. Everard, on November 11th, 1877.

"His appearance was as follows: On the physical side, a slight hesitancy of speech, with trembling of the hands; on the mental side, a certain degree of weakness of memory with no expansive ideas, but no perceptible delirium.

"This satisfactory condition lasted about a month, and he seemed so well that the subject of discharging him was under consideration.

"Early in December, Mr. D. ceased to be in this expansive condition; he became sad, taciturn, ate little, walked very little and spoke scarcely at all. December 6th, he complained of pain at the stomach, refused food and took to his bed. The next day, on visiting him, we found gastric disturbance, together with constipation and retention of urine. Under the influence of purgatives these symptoms were relieved, but he made no efforts to rise.

"He remained cast down, depressed, spoke in a doleful voice, did not eat nor rise, and allowed the catheter to be used every day, saying that he had no power to urinate.

"The persistency of these ideas soon revealed the existence of a true delirium of depression with hypochondriacal ideas. This delirium and depression increased each day. We forced

him to rise and to eat, or to accomplish the acts of excretion, but he resisted; or rather, he would not take the initiative nor yield to threats. He remained sitting the whole day, cast down and doing nothing; he spoke but little, and then in a low voice, and only to complain. He received even his visitors, even his dearest friends, with indifference. At the same time the idea ruled him that he had all sorts of diseases. Sometimes it was his urethra or his rectum which was so closed up that he could neither urinate nor go to stool. One day he would have a hernia; another the shoulders were higher than the head; at times he could not speak, could not walk; one eye was larger than the other, and he had pains all through his body.

"At the time this change in his condition occurred, his eyes, which had previously been alike, became unequally dilated, the left pupil being perceptibly larger. His speech, too, became embarrassed, and his limbs feeble; he lost flesh and required the use of tonics. One day he accidentally received a blow in the left eye from another patient, from the effects of which he recovered slowly, and producing a slight drooping of the lid lasting a month.

"This state of depression lasted until early in March, about three months. Then a change was noticed, both physically and intellectually. He ate better and took more exercise; no longer complained of unusual diseases, nor of pain in his legs. Soon his voice became louder, and he became loquacious and boisterous, and gesticulated much in speaking; his speech was disturbed and his countenance animated; he became importunate; found fault with his food as insufficient, and began to write a great deal.

"March 24th, at our visit, he surprises us with a glowing account of his wonderful skill upon the cornet à piston, and boasted of having played a solo upon that instrument before thirty crossed and mitred bishops, at the same time he handed us a letter, in which, recounting his genealogy, he tells of one of his ancestors, a friend of Robespierre, who saved at the scaffold, eighty peasants condemned to death by the revolutionary tribunal.

"It cannot be doubted that a great change has taken place in his condition. These symptoms becoming more marked each day, soon reached the usual height, and the word *millions* so often on the lips of the general paralytic, do not fail to appear.

"Mr. D., writes letters to all the distinguished men in Europe; he is to be councillor-general, deputy for Paris, minister of finance, in short he displays all the characteristics of *le delire des grandeurs.*

"March 26th.—He became so violent that he had to be removed to another ward, and restrained by a camisole.

"March 29th.—He had a peculiar attack and fell; this attack, of short duration and without convulsive movements, was to be attributed to a state of syncope, produced by his excessive excitement. His general health grew worse, he remained seated, the left pupil dilated, the voice unintelligible, the throat dry, and the lips fuliginous and covered with a dark coating.

"Gradually his excitement decreased; he rose up, and the camisole was removed; he ate better again, but he remained feeble, his limbs trembled and he walked in an ataxic manner.

"April 10th.—His condition continued to improve. His excitement is great at times, and his expansive delirium continues; his speech is more intelligible, but he continues to speak of his millions, of which he gives away many.

"To-day, July 1st, 1880.—He remains quiet and a little depressed, and it would not be surprising at any moment to again see him relapse into the melancholic and hypochondriacal state as at first."

Although general paralysis, like other forms of insanity, seeks its victims in all ranks of society, we find that certain classes and persons of certain age display a greater predisposition than others. According to Dr. Sankey the liability occurs in the following order:

1. Males of the lower classes. 2. Males of the upper classes. 3. Females of the lower classes. 4. Females of the upper classes, and he adds this significant remark: "This order of sequence may be also considered that of the subjugation of

the animal passions in the different classes," and Calmeil tells us that males are attacked more frequently than females in the proportion of fifty to fifteen. As a rule the disease makes its appearance in persons of from thirty-five to fifty years, but there is a case on record where the patient was a girl of seventeen.

The causation of the disease is a subject upon which different opinions are held, and no one opinion is sustained by convincing arguments. At one time one cause was thought to be the potent one; at another time, another. Only one thing can be assumed as settled, and that is, that heredity must be looked upon as the great predisposing cause in this, as in other varieties of insanity, but, as Althaus says, whether the disease itself is hereditary remains an open question.

Of one hundred and nine patients, regarding whose ancestry fairly complete particulars could be obtained by Dr. Macdonald, thirty-nine revealed a history of insanity in one or other of the branches; thirty of other nervous diseases; twenty-two of intemperance in parents, and in fifteen cases the record was unfavorable regarding both branches.

In turn, prolonged intellectual efforts, intemperance, and venereal excesses have been cited as the distinct determining agent in the production of the disease. But the fact that it attacks men of all grades of mind, and, chiefly indeed, those of a low order of intelligence and education, negatives the first proposition; and the occasional occurrence of the disease in persons of perfectly correct habits, and addicted to no vicious indulgence, shows that such excesses, though actual, cannot be the essential causes; and, "in speaking of excess it should be kept in mind, that we are dealing with an unfixed and uncertain quantity, for what would be moderation in one, is excess in another." Dr. Sankey, who had charge of the women's department of the great asylum at Hanwell, says that in going through the notes of his cases of paresis, it is remarkable how many of them had led irregular lives, and, especially, had been guilty of sexual impropriety of some sort. But this is not always the history, often it is of loose habits, suddenly assumed, shortly before the supposed incep-

tion of the disease, and, contrasting with a former life of steadiness and propriety of conduct. Then the question arises (as it has arisen regarding most of the assigned causes of insanity, and to the ultimate exclusion of many of them, and especially of the so-called moral causes), whether the alleged cause is really a cause at all, and not rather an effect; whether, in other words, the insanity did not precede the drunkenness or other excess, and lead to it, and not the reverse.

Change of character is the prominent symptom of other forms of commencing insanity, and there is scarcely sufficient ground for assigning it another function or significance in this.

Dr. Macdonald says: "One hundred and sixteen out of one hundred and fifty-five patients give a history of habitual intemperance, while all but ten of the remainder claim (or their friends claim for them), the designation of moderate drinkers; the word moderate, if the truth were known, being probably a very mild and insufficient indication of the real amount of customary indulgence." But we must remember that the patients coming under his care were drawn from the class which commonly uses alcoholic liquor in excess.

At one time syphilis was asserted to be the cause of the brain changes finding expression through the symptoms of paresis, but, though probably an occasional cause, it is certainly not the only one, and the attempt to assign to it a role, or even a special importance has ceased.

All that it is safe to assume then regarding the causes of general paralysis, in the present state of our knowledge, and pending the progress of pathological study, is, that in common with the other forms of insanity, it finds its subjects mainly among those in whom there is an hereditary tendency towards nervous disease, and that so far as immediate causes are concerned, while the disease undoubtedly attacks a few who have no such vices, and many in whom the relation of such vices to the disease—whether that of cause or effect—is not determined; yet the fact that in a conspicuous number of cases attacked there is a history of profligate and vicious in-

dulgence justifies the belief that such indulgences are operative as the most frequent, if not the sole determining influence.

As has been intimated, a characteristic of the disease is its selection of the male sex as its subjects, in a very large proportion of cases. Indeed, early in its history, writers upon the subject were inclined to regard it as only attacking men, but in course of time undoubted cases occurring in women came to be recognized and recorded, and now we know that it is a disease to which women, in common with men, are liable, although in a much inferior degree. There seems to be a very marked difference in this respect in different localities; in some places the number of women attacked bearing a much larger proportion to the whole number than in others. Thus in England twenty-five per cent. of the deaths from general paralysis during a given period were women.

These facts have a bearing upon the question of causation. That the disease is relatively rare in the sex which is less given to alcoholic intemperance, and upon whose economy excessive sexual indulgence has less effect, is a point in favor of the potency of these irregularities in its determination. Further weight is given by the greater prevalence of the disease in countries and districts, and among classes, where the use of spirituous liquors among women is more common; and still further from the fact, that the investigation of the former condition of the females attacked reveals a history of dissolute practices, and frequently of professional prostitution.

Prognosis.—There seems to be no reasonable ground for anticipating any result but death, when once the presence of the disease is unmistakable. The few cures that have been from time to time reported are at best doubtful; either their history admits the suspicion that the diagnosis was incorrect, or the short period during which they were kept under observation after discharge, renders it probable that the apparent restoration to health was simply a remission in the disease, and not a recovery from it. I have never seen or known of a case of real recovery, and have seen returned to the hospital, cases in which recovery had been claimed by others. These

remissions, which are frequently seen in the course of the disease, are very apt to give rise to false hopes and false beliefs in recovery. To an unskilled eye, every trace of the disease seems to have disappeared, and, although in most cases, one accustomed to their observation will find some slight traces remaining,—a slight inequality in the pupils, a trembling of the lips, or difficulty in articulation,—there are some cases where even these signs are absent. But relaxation of the regularity and discipline of asylum life, and especially any endeavor to resume former pursuits will inevitably rekindle the disease and a relapse will speedily follow. So that if our diagnosis be positive, there is no good reason why our prognosis should be less positive; and, though the prophecy of death may appear for a time to have been an erroneous one, the patient who has so markedly improved, will soon again relapse and confirm the verdict.

As regards the duration of the disease, either the opinion of observers has been modified of late years, or else it is not so rapidly fatal as in times past; probably both are true. Formerly it was spoken of as terminating usually in a very few months, and three years was assigned as its utmost limit in rare cases. Now three years is named as the *average* duration, and many cases are recognized as having lasted more than twice that length of time, and facts go to show that it may last ten, twelve, or even fifteen years. This is partly to be accounted for by the greater length of premonitory or prodromic periods which have been so much more thoroughly studied, and it is partly to be explained by the special nature of the disease. Thus many of the later observers say that the duration of general paralysis is very much greater when it attacks those who have well-marked hereditary taint, or whose ancestors have suffered from the various mental and nervous diseases, than when it attacks those without such predisposition.

Dr. Crichton Browne says in vol. 5 of the West Riding Reports: "It is most satisfactory to observe that the *average time of residence* of general paralytics in the West Riding Asylum is more than three and one-half months longer than

what is stated by Drs. Bucknill and Tuke to be the generally estimated *total duration* of the disease."

Death from uncomplicated paresis comes in one of two ways, either gradually through the extension of the paralysis to the respiratory muscles and the exhaustion attending the disease, or suddenly by one of the epileptiform convulsions. The first is much the more common mode of death. Pulmonary complications are not infrequently a cause of death.

Dr. Talcott says truly that the treatment of paresis should be both hygienic and medical. While we are unable with our present knowledge to expect a cure, we may at least prolong and render endurable an otherwise wretched existence; and perhaps succeed in giving months of comparative comfort and ease. Each case of general paralysis, like every other case of disease, has of course its own individuality, yet there is in all cases a remarkable uniformity of both objective and subjective symptoms.

Thus far alcohol, pure and simple, is the most thoroughly indicated according to the symptoms, and most efficacious in effecting relief. A weak and tottering gait, limp and uncertain movements of the entire body, tremulousness of lips and tongue, thickness and hesitancy of speech, uncertain expression of the eyes, together with transcendent notions of wealth and power, are all characteristic of the paretic patient, and find their most perfect counterpart in the actions, words and thoughts of him who makes a *proving* of alcohol.

Dr. Talcott says that under the action of small but appreciable doses of alcohol several of his patients have experienced marked temporary amelioration of their symptoms; but the medicine has not charmed away the malady, nor hindered for any great length of time its onward march.

Again he says: "We have used Cannab. ind. as our patients have manifested the strange vagaries, or experienced the marvelous visions of the Hashish eater; we have tried Coca, when the sense of strength has outstripped the actual physical powers; we have administered in varying potencies Act. rac., Arsen., Bellad., Cupr, met., Hyosc., Ignat., Nux vom., Phosphor., Digit., Calc. phosph., Phosphide of zinc, Conium, Anacar.,

Stramon., Sulphur, Ver. alb., and Ver. vir., when any of these were called for by proper indications, but while our remedies have apparently produced beneficial results, yet the El Dorado of our hopes, the perfection of a cure remains unreached. The treatment of paresis by homœopathic medication has been too imperfect and brief to be either discouraging, or conclusive or satisfactory."

Dr. Samuel Lilienthal says in an article published in the Transactions of the New York Homœopathic Medical Society, 1878:

"The therapeutics of progressive paralysis is just as rich in means as poor in success. Still we cannot get our clue from asylums, where patients are too often received in late stages; and statistics would show far better results if the patients were admitted early in well managed institutes provided with large gardens. In such a good asylum the patient gets *mental and somatic rest*, a *condition sine qua non* for a cure. Here the patient must enjoy *fresh air* as much as possible, and his diet must be plentiful and nourishing. Wine in moderate quantities is easily borne during meals, but tobacco must be strictly forbidden. During the initial stage transient benefit can be expected from *galvanism* to the medulla oblongata and upper part of the spinal cord; also iodide of potassium and cool sponging are advisable. All heroic treatment is certainly injurious, as hydropathic treatment, all mercurials, or abstraction of blood. Calabar bean is praised by George Thompson and J. Crichton Browne. especially when palsy has advanced, but it failed in other hands. During the intercurrent states of excitation, *prolonged tepid baths*, keeping the head cool at the same time, do good service. Sometimes morphium and chloral may be nessary for quieting the patient. The patient must be frequently reminded to attend to the calls of nature, especially during the dementia; and the utmost cleanliness must be enforced, but this can only be done by patient and intelligent nurses."

"Sheppard (*Lectures on Madness*, p. 160) recommends, during the early paroxysms of excitement, tincture of digitalis, whose exhibition may be disguised by putting it in the

patient's beer at dinner and supper. In some cases chloral is also very useful. The wet sheet is also a very valuable adjuvant in the summer time during the initiatory period of this malady. The heat of the skin is sometimes abnormally high, with great excitement and destructive tendencies. All such cases are admirably suited to be under asylum discipline and management.

"Jahr, in his Mental Diseases, gives us any quantity of remedies, but we doubt whether many of them would be of benefit in the treatment of this disastrous disease. We turn with far more confidence to Kafka (*Hom. Therapie, II*, p. 152) where he says: Vertigo, in the prodromal stage, deserves our close attention. We would think of *Nux vomica*, two doses daily, where the sensation prevails as if the patient were intoxicated—as if everything turned in a circle—with nausea, vomiting, dyspepsia, constipation or hard stool; the gait clumsy and dragging. Should Nux v. fail, we will find in *Natrum mur.* the same complex of symptoms. *Phosphorus* is indicated for that vertigo showing itself in walking, stooping, turning the head, closing the eyes, with the sensation as if he would fall to one side, ameliorated by standing still or lying down; with dulness and stupefaction of the head, sleepiness, and frequent falling asleep in daytime, weakness of memory and of the lower extremities, especially where the atrophy is caused by excessive venery and onanism.

"*Rhus toxicodendron* has vertigo from previous senility in consequence of bodily over-exertion, especially during walking, standing and sitting, with the sensation as if they would fall forward or to the right side. They walk about as if they were drunk, and feel better when lying down. There is a sensation of drunkenness and stupefaction in the head, with weakness of memory, languid run of ideas, and heaviness in speaking.

"For pride of rank or riches we have good remedies in *Platina* and *Veratrum*, the former, especially, where the patient is proud, full of self-esteem, and looks down upon everybody as his inferior; the latter gives us the purse-proud patient, who lavishes his imaginary wealth on everything and every-

body. Where the disease has fully set in, and the *manie de grandeur* continues, we may still expect some good results from *Stramonium*. Where the patient suffers emphysema simultaneously with the symptoms of the disease, Phosphorus might be indicated.

"According to the authorities already cited, we may be allowed to consider *dementia paralytica* a *tabes cerebralis;* and as this disease is so frequently combined with *tabes seu atrophia dorsalis*, it may be worth while to study the remedies applicable to the latter. Kafka divides also into three stages, exactly corresponding to those of *atrophia cerebralis*, viz., that of sexual excitement, that of debility and that of paralysis. Here also a cure is only possible during the stage of excitement, and the prognosis becomes steadily more doubtful the more the disease has progressed towards paralysis. For too frequent seminal losses, he recommends Phosph., Nux vom., Calc. carb., Agaric., Staphisagria. For bodily over-exertion, Rhus, Arnica, Arsen., Coccul., Sulph. At the same time a strengthening diet is recommended, sojourn in the country, cold sponging of the back, hydropathy, sea-bathing, chalybeate waters, and induction-electricity. In cases of paralysis, Plumbum, Cuprum, Arsen., Phosph., Secale, Strychnine, may be tried, although at this stage not much benefit can be expected.

"Baehr (*Therapie*, 1, 133) also hopes beneficent results from early treatment. Hints for *Mercurius* are found in all phases of paraplegia extremitatum, of the bladder and rectum, with a decided tendency to twitching and shocks; severe pain in the spine, increased by motion; restlessness; anæsthesia of the skin. *Secale* also gives us the characteristic twitchings and shocks, painful contractions, even tetanic symptoms, perfect paralysis, sometimes with increased irritability, decubitus etc. *Rhus tox.* corresponds to the third stage, just as Veratrum does to the second stage. *Plumbum* combines the symptoms of *tabes cerebralis* and *spinalis*. Sulphur is an important remedy even at a late stage, when the disease comes to a standstill (the long intermissions of these diseases are well known), and where it is worth while to act upon these obsolete exudations,

and thus, perhaps, improve the paralysis, Silicea, Causticum, Aluminium met. deserve to be mentioned, for where we cannot cure, we might thus procure a temporary amelioration.

"Ruddock (*Text-book*, 407) considers general paralysis of the insane essentially a chronic meningitis, the chief symptoms of which are gradual and complete loss of both mental and physical powers. Of remedies he only mentions Stramon., Veratr., Zincum.

"Hering, in his *Analytical Therapeutics*, gives us some hints to prescribe successfully for this insidious disease. Thus, under complaints after mental over-study; *Lachesis*, for talkative mania, speaks in choice phrases; jumping from one object to another; or exalted language; corrects herself by substituting another word. *Hyosc.*, for hyperæsthesia of sight, with thirst and mania; melancholy; unwilling to talk; weakness, with exaltation now and then. *Stramon.*, pupils immovable, unconscious and moving hands and feet. Cuprum, Hyosc., Stramon., Veratr., Vip. tor., unsteady and melancholic, with mania. Bellad., contracted pupils, pulse and skin normal, deranged mind. In fact, we feel that the treatment of insanity is now greatly facilitated by the study of this work, and there is hardly a case where we cannot find the corresponding remedy."

It may not be out of place to mention the treatment of the excitement of general paralysis by repeated large doses of hyoscyamine, given on successive nights, as practiced in some asylums, and, it is claimed, with good results.

Case.—A. B., admitted August 27th, 1876. For a whole month he was exceedingly excited and restless, and had only short snatches of sleep. In the intervals he was employed in tossing about, rearranging and tearing his bed-clothes, and in smearing the walls and swabbing the flow with his excretions. After three repetitions of three-quarter grain doses of hyoscyamine on alternate nights his excitement was completely removed. He also became clean in his habits, has since remained well, and has been transferred to a ward where he may have the privilege of enjoying, for a time at least, such advantages as would have been impossible had his degraded habits

remained unchecked. This condition continued for four months when the report was made.

Mickle says: "A patient threatened with general paralysis, one who has shown symptoms of the prodromic period, the period of mental alteration not yet amounting to decided mental alienation, should be at once freed, as far as possible, from the conditions under which symptoms of so sadly prophetic a nature have arisen. A perfectly regular life, early hours, moderate and regular bodily exercise, a total disuse of alcohol in any form, and of tobacco; the use of bathing and friction of the skin, the application of cold to the head when it becomes unduly heated, while the feet are kept warm, and if necessary, mustard, or hot pediluvia are used.

"Every source of mental worry, anxiety, annoyance, fear, chagrin, should be scrupulously avoided at almost any cost. All intellectual labor should cease, and just such an amount of reading, of conversation, and of thought, should be undertaken as will afford the most gentle of intellectual and emotional exercise. The society should be that of the patient's family or intimates. In a word, the patient must go out of his ordinary life, must retire from his duties, labors, contrarieties, turmoils and ambitions, and in repose seek a renewal of nervous tone, and of power of resistance to hostile influences."

Dr. S. H. Talcott says: "Hygienically the paretic needs the most scrupulous and kindly care. During the stage of excitement he should be watched over and handled with all the caution attendant upon the nursing of a patient suffering with acute mania. After passing into the chronic stage his strength and physical health may be long preserved by abundant out-door exercise. By placing the patient at work he is relieved of his overcharge of activity without feeling the chafings of close confinement. The air and sunlight contribute to his happiness and well-being; the labors of the day divert his thoughts at the time and promote his tendency to sleep at night. His appetite is kept up, and his powers of digestion remain longer unimpaired than when idle. These labors of the paretic can only be begun after the excited stage is past; as during that period his attention can hardly be attracted to

anything of an ordinary worldly nature. Work should of course be imposed only when the patient is sufficiently strong to endure it, and it should be continued only so long as it produces evidently beneficial results. In his labors the patient should be protected from the hot sun, as this almost always brings a return of the unnatural excitement."

In regard to the treatment of confirmed general paralysis Dr. Mickle speaks as follows:

"For the most part the means suggested in the treatment of the prodromic period will still conduce to amelioration. In so malignantly fatal a disease, general management and nursing hold the chief place in the nursing.

"Most general paralytics should be removed from home for a time, either to an asylum, or to some house of which part can be set aside for their use. To retain them at their own homes, where they may squander their means, are most dictatorial, fly into furious passion if not obeyed, and where everything rouses their desire to alter, sell, or destroy, is to promote angry and disturbing scenes, most prejudicial to the patients, and most painful to those about them.

Tact and gentleness are very necessary in their management. By tact, gentleness and *bonhomie*, many of them can be kept in good humor; or, at least, those angry outbursts which, too often, follow the slightest crossing or thwarting, may be avoided as far as possible. In the early stages peace and mental rest should be sought by every means, but too often are unattainable, and when furious paroxysms of destructiveness or violence occur, a judicious isolation or seclusion may prove beneficial. In the early stages, also, and especially in the forms characterized clinically by much mental excitement, by expansive delirium, or by so-called congestive tendencies, the nourishment should be light, easily digestible, limited, and absolutely free from alcohol. This limitation of diet is far from being always easy to carry into effect, inasmuch as the patient's appetite is usually large, nay, often voracious, although when this is more apparent than real—the patient eating over-plentifully through inattention, it may be prevented by judicious management. In such cases, also, the ex-

cretory organs, and especially the bowels, should be kept in free action by the usual dietetic and other means. As far as possible the patient should live in the open air, and take a moderate amount of exercise.

With the advancing progress of the disease the diet may be made more generous, and in the third and fourth periods may, with advantage, be extremely liberal.

When the patient becomes unable to walk by himself with safety, he must have the assistance of attendants in taking regular daily open air exercise; at a later period he may recline in an easy chair, sitting on air cushions; and thence, either by a gradual decline, or after convulsive or paralytic attacks, he must sink yet a step lower in the scale and pass his days on a water-bed, but usually, for a short time only. Bed-sores tend to form, pulmonary affections and diarrhœa afflict his feeble and now attenuated frame; the excrements all pass involuntarily beneath him, and, as a rule, the end is not far. Hence, in the later stages, the paramount importance, next to good feeding, of perfect cleanliness and of the prevention of bed-sores. These are only attainable by the most constant and scrupulous care in the instant removal of all excreta, the use of "railway" urinals, where possible, and of a water-bed, frequent changes of position, and the employment of some hardening application on the parts exposed to pressure.

Dr. Talcott says, that these bed-sores are best treated by the method proposed by Dr. Brown-Sequard. Two poultices are alternately applied—the one of pounded ice, the other a very warm bread or linseed poultice. The pounded ice, contained in a bladder, is applied for eight or ten minutes; the warm poultice for from one to four hours.

Dr. Mickle says, if the sores are acute: "Apply a solution of carbolic acid, or of potassium permanganate, and over it a linseed poultice; cut away sloughs as soon as they are loosened, syringe out regularly, frequently, and thoroughly, with the carbolic, permanganate, thymol or chloralum lotions, then dress with the same, or with a solution of boracic acid, or with powdered zinc oxide."

Pathology.—Most of the writers upon general paralysis con-

sider that the essential changes of the disease are inflammatory in their nature.

Dr. Talcott says: "There exists during the progress of paresis a slow but continuous inflammation of the cortical substance of the brain and its meninges."

In 1826, Bayle asserted that it "is the effect of irritation or inflammation of the cortical gray substance of the cerebrum, which directly disorders the functions of the brain. This irritation, or this inflammation, is in its turn the direct result of a chronic inflammation of the soft meninges, which commences at their cerebral surface."

Calmeil attributed the symptoms to chronic diffuse peri-encephalitis, and Ludwig Meyer also supports the inflammatory view; he believes that the inflammatory action starts from the walls of the capillary vessels of the gray cortex.

Hitzig, Voisin, Clouston, Westphal, Erlenmeyer and Crichton Browne, all lend the weight of their authority to this view, only differing perhaps as to its starting point and extent.

Baillarger describes two orders of lesions as marking different cases in general paralysis. 1. The inflammatory, those due to peripheral meningo-encephalitis; and 2, those dependent upon hydrocephalic or serous effusion, with atrophy or softening of the brain.

Dr. Talcott says: "We prefer the expression 'meningo-peri-encephalitis with atrophy,' as the one which will most completely cover the whole pathological condition. The *pia mater* is always found adherent to the brain surfaces in spots upon the upper parts of the convolution, and when peeled off takes with it small portions of the cortical substance. These adhesions are found upon the anterior and middle lobes. The brain always atrophies under the influence of paresis, and the tissues become more or less sclerotic. Effusion to a moderate degree usually occurs. So it does also in senile dementia, but in the latter case it is a process of years duration and a result of old age, while the atrophy and effusion of paresis may occur in a few months, and in the prime of life. Inflammation of the arteries exists to a considerable extent, and occasionally athe-

romatous deposits are found. The dura mater is often thickened, sometimes to the extent of half an inch, and is somewhat discolored, and darker than usual. There is generally an œdema of the membranes of the brain, with a more or less opacity of the arachnoid. In addition to the pathological condition of the brain, there is found a decided atrophy of the great sciatic nerve, which may account for the gradual loss of power in the limbs, the tottering, uncertain and shuffling gait.

"This atrophy of nerve tissue which apparently begins in the great nerve-centres steadily proceeds to involve the entire nervous system. Closely associated with the manifest weakness in walking is a tremulousness of the lips and tongue, hesitancy and thickness of speech, and a flat, masked appearance of the face, all of which latter are due to the wasting away and loss of power of the facial, tri-facial and glosso-pharyngeal nerves."

A second class of authors consider general paralysis to be primarily and principally a degeneration.

L. V. Marcé thinks it due to chronic congestion with exudation.

Bucknill speaks of general paralysis as being "essentially a disease of nutrition affecting the whole nervous system. It consists in some vice of nutrition whose nature is yet unknown, but whose extent embraces the whole of the nervous system, and is by no means limited to the encephalic centres. The morbid processes in the brain are not encephalic."

Bonnet, Poincaré and Blandford agree in the main with this view, while Dr. J. Luys believes the morbid process to be a true, diffuse, interstitial sclerosis of the neuroglia of the nervous centres.

Dr. C. J. Mickle says: "In the vast majority of cases the cerebral cortex is primarily affected, the meninges usually being more or less involved almost simultaneously.

"The morbid process is primarily set up by excessive, irregular, protracted activity and overstrain, of a larger or smaller number of the active functioning elements of the cerebral cortex, which subserve the higher faculties of the organism. It

is usually admitted that these active functioning elements are the so-called ganglionic nerve-cells of the cortex. Of the most potent and frequent causes of general paralysis each, in its own way, brings about the primary step to which we refer, namely, the excessive, irregular, protracted activity or over-strain of a larger or smaller number of the nerve-cells.

"Partly in consequence of the different modes of action of the several causes, partly owing to the varieties in habits, work and circumstances of the patients, producing habitual relative over-activity, activity or disuse, of this or that part of the brain, and, hence, relative higher development in the one case, and relative feebleness of action and simplicity of intercommunication in the other; and partly owing to hereditary and to diathetic causes, and, possibly, temperament as well; it comes about that the cortical regions or centres most severely affected, vary as we have said, in different cases.

"Over-activity of this kind and over-strain, induce contemporaneous hyperæmia of the part, and this hyperæmia tends to keep in action its own causes. From frequent repetition of this condition the normal tonus of the arterioles is gradually lost, and not only in the cortex, but in the overlying meninges also. Hereby is prepared the way for sudden and protracted meningeal and cerebral hyperæmias, which embarrass the brain circulation and brain nutrition in a more or less protracted manner, and leave behind them more or less permanent effects or traces.

"In consequence of this there is distention of the vessels, circulatory impediment, irritative over-growth of the connective nuclei of the walls of the vessels, and probably, also, of the neuroglia, while others of the nuclei and cellules often termed embryoplastic, or their materials, are, perhaps, directly effused. Other changes occur in both, also, as a result of the lowered standard of the local processes of nutrition. Moreover, out-wandering of white blood-corpuscles, and escape or extravasation of red blood-corpuscles, may further choke the parts. There is a constant tendency to diffusion of all the morbid processes, and among the macroscopic changes are a thickening opacity, and œdema of the superjacent meninges."

The mental symptoms unmistakably point to the primary involvement of the frontal lobes, which have been fixed upon by Ferrier as the centres of attention, and of the reflective and intellectual faculties, and where, as we shall see, adhesions are numerous and constant in general paralysis.

"In general paralysis," says Westphal, "the mental disturbance is from the first based on the foundation of mental weakness."

The order in which the motor symptoms present themselves corresponds pretty closely with the order in which, according to Ferrier, the motor centres are arranged in the cerebrum from before backwards. Of course there are great varieties in the order in which these motor symptoms appear, and in the manner in which they are combined. In some cases one or more of them are never seen, and in other cases they succeed each other most irregularly, but, as a rule, they come in the order indicated, and are manifested through the muscles of the face, tongue, larynx, hand, arm, foot and leg in succession. The centres for the muscles of all these parts are all placed in the posterior third of the frontal, and in the parietal lobe, and in a region where adhesions are always abundant in general paralysis. Each motor centre affected by the morbid processes of general paralysis would, at first, during the hyperæmic and inflammatory stage, be irritated and stimulated to a profuse reproduction of motor ideas, and to incontinent discharges; and would, finally, during the degenerative stage, be broken down, and have its functional activity abolished.

The sensory centres seem, on the whole, to be more frequently exempt than the other parts of the cerebrum from morbid change. There is one of them, however, the angular gyrus or *pli courbe*, the sight centre according to Ferrier, on which adhesions are often seen. Now hallucinations of vision are the most frequent of all hallucinations in general paralysis.

I shall devote the rest of this lecture to a description of the appearances of the brain as given by Dr. J. Crichton Browne in Vol. 6 of the *West Riding Reports*. He says:

Let us suppose that the brain of a patient who has died of

general paralysis has been removed from the skull, and that in this case there are no arachnoid cysts or other adventitious conditions. What first strikes us is an abnormality in the shape and consistency of the brain. It is somewhat attenuated in the frontal region, and it lies upon the board as if it were flattened and collapsed. It lacks the rounded contour and plumpness of the healthy brain; and has an uneven outline and lateral bulgings, obviously due to the softness of its texture, which renders it unable to preserve its proper form, when deprived of the support of the cranial walls. And not only is the brain softened, but it is atrophied, and there is an obvious decrease in the volume of the entire cerebral mass. In no form of mental disease, except in the dementia of brain wasting, is atrophy of the brain so advanced as in general paralysis, which is all the more remarkable, as death happens in general paralysis in that decade of life in which the maximum weight of the brain is attained.

The next observation that occurs to us is that the arachnoid is greatly thickened, and that it has in many places lost its transparency and become white and opaque. Along the margins of the great median cleft, where the Pacchionian granulations are unusually numerous and large, it has become a tough, glistening membrane, and over the frontal and parietal lobes it is in many places cloudy or opalescent. Over the occipital lobes the arachnoid retains its natural aspect, but over the temporo-sphenoidal lobes and cerebellum, scattered patches of whitish opacity are generally to be noticed. Wherever situated, the opaque patches are but seen over the sulci and not on the summits of the gyri. Directing our attention next to the pia mater, we notice that it, as well as the arachnoid, is remarkably thickened. Instead of being thin and delicate, it is coarse and tenacious, and has a swollen and somewhat gelatinous appearance, owing to infiltration of its meshes with serous fluid. It is not, however, pale and watery, as in brain wasting, but is irregularly hyperæmic, presenting amidst its œdematous expanse reticulations of dilated vessels, and with more or less injection. The distribution of the morbid changes in the pia mater corresponds with that of

those in the arachnoid. They do not extend on to the occipital lobe, and are most marked over the frontal and parietal lobes. As regards the great arteries of the brain, we are struck by their freedom from atheromatous deposit and calcareous degeneration.

Looking next at the convolutions, as seen without disturbing the membranes, a glance suffices to show that they are much atrophied, the wasting being most advanced in the frontal and parietal lobes, present to some extent in the upper part of the temporo-sphenoidal lobes, but invisible in the occipital lobes or orbital lobules. To compensate for the wasting there is much œdematous effusion, which is diffused throughout the meshes of the pia mater, and collected in some places in hollows and channels, when the wasting is very far advanced. The wasting of general paralysis seems to differ from that of senile, simple and consecutive dementia, in that it is nearly as well marked in the parietal as in the frontal lobes, and to agree with it in that it does not invade the occipital lobes.

But there are other appearances that are very characteristic of the disease. The skull is generally thickened, but not of very dense consistence, its inner surface having a reddish-blue tinge, owing to the presence of blood in the diploë. Sometimes the skull is decidedly soft, and in those cases the thickening is considerable. The dura mater, which is thickened, is adherent to the skull; most so in the frontal region, but the adhesions are not of that strong and intimate character so often noticed in senile dementia.

If the dissection of the brain is now proceeded with, the thickening of the pia mater is again impressed upon the observer when it has to be torn through. It is then found to be in some places intimately united with the gray matter of the convolutions. Instead of coming away from the frontal and parietal lobes, as a loose and well-worn glove does from the hand, it is glued to the surface of certain gyri, and if it is forcibly torn away it removes some tissue, and leaves a rough eroded surface beneath.

The superficial layers of the cortical substances are, in fact,

torn away with the pia mater, and may be seen adhering to its inner aspect. The points or areas of adhesion may be few or numerous, large or small, distinct or confluent, but they are invariably confined to the summits of the gyri, and do not spread down their sides nor occur at the bottom of the sulci. Where the pia mater has been stripped from a region of the cerebrum in which the adhesions are abundant, the denuded and abraded convolutions look just as if they had been gnawed or eaten away by a caterpillar. The surface of the convolutions, when not implicated in the adhesions is generally smooth and normal.

On slicing the brain, a general deterioration in its quality is at once recognized. The gray matter has a shallow and faded appearance, and is traversed by vessels that are coarse and prominent, and in some places it has a violet or vinous tinge. It is undoubtedly softened and watery, as is also the medullary substance, which is of a dirty, grayish white color, and presents an excessive number of coarse vascular points, and a varying number of blotches of vinous staining. The ventricles, which are abnormally capacious, contain an excessive amount of serous fluid; the choroid plexuses are œdematous, and the ependyma is often granular. The basal ganglia are all more or less atrophied, and the cerebral nerves, as a rule, have a preternaturally white and glistening aspect.

But the one appearance in general paralysis which is very constant and very characteristic is the adhesion of the pia mater to the cortical substance. Since the frequency of these adhesions was first recognized, I have given them a large amount of attention and have come to these conclusions: 1st, that they constitute the most constant pathological change in general paralysis; 2d, that they explain the essential nature of the morbid process in the disease; 3d, that they will also, when minutely studied, explain its symptoms and progress.

A headache in the second stage of the disease is sometimes so severe as to induce the patient to beat his head, to knock it against the wall, or to rub the scalp until it is denuded of hair; this headache is seated in the frontal or parietal region, and is accompanied by giddiness and a sense of fulness and pressure within the skull.

I have now endeavored to show, that these adhesions are caused by a chronic adhesive inflammatory process, springing out of excessive functional irritation, and proceeding to disintegration of the cerebral gray matter; and, that they, generally speaking represent the course and distribution of the morbid processes in which the disease essentially consists.

There are in general paralysis, invariably, certain motor symptoms involving in different degrees and in various orders of succession the muscles of the face, tongue, hand, arm, leg, etc. There are in the human brain certain areas which by arguments from homology as well as by clinical facts, can be proved to be centres of representation of the movements of the face, tongue, hand, arm, leg, etc. Do adhesions cover over these areas in cases of death from general paralysis? Yes, almost invariably; a fact which in itself gives plausibility to the claims advanced for these adhesions to be regarded as reliable *vestigia* of the diseased action.

Jurisprudence.—The victims of general paralysis are very likely to come before the courts, and, as might be expected from the nature of their delusions, the act of which they are generally accused is some form of theft. Deeds of violence are more rarely committed by them; they are ordinarily good humored and indisposed to quarrel; and if they do attack others it is because their power has not been deferred to, or their rights not respected. Petty thefts are the most common offences calling for the determination of the medico-legal relations of general paretics, and they are committed by the patient under the delusion that what is taken is his own property; that his exalted position gives him the right to help himself to the property of others, or else that he has ample wealth and will pay at any time for the article appropriated. In yet other cases arrests for intoxication, disorderly conduct, or indecent exposure of the person, first bring the paretic under suspicion of insanity, and lead to the recognition of its existence and his seclusion. The boisterous behavior and the indecencies of conduct are frequent and direct outgrowths from the mental disturbance; and the intoxication may be real, or merely the interpretation given to the symptoms of insanity by the policemen making the arrest.

LECTURE XVI

Hysteria, Hypochondriasis.

Hysteria.

Thus far we have confined our attention to those diseases which are specially called mental, but there are also a few, very important, which are sometimes classed as nervous and sometimes as mental, because the mental disturbances are more or less prominent, but not generally to such an extent as to constitute insanity. Of these diseases we propose now to consider hysteria, hypochondria, catalepsy, chorea and somnambulism.

Undoubtedly these topics will be presented to you by the professors of pathology, clinical medicine, and diseases of women, from the standpoint of their respective chairs, but these diseases are so protean in their character that it will be well to consider them from the mental standpoint as well, keeping constantly in mind that for us the word mental disease does not mean disease of the mind, but a disturbance in its manifestation.

Hysteria is a disease which has been known from the very earliest times of civilization, and was so called by the physicians of Ancient Greece, who believed it to arise from the freaks of a dissatisfied and ill-tempered uterus. Plato and his followers believed the organ to be an animal endowed with spontaneous sensation and motion, lodged in another being and ardently desirous of procreating children. If it remained sterile long after puberty it became indignant at its unnatural condition, travelled through the whole system, arrested respiration and threw the body into extreme danger, until it became pregnant, whereby its wrath was appeased, and it behaved well ever afterwards.

The multiform symptoms which are included under the term hysteria may, without exception, be recognized as the

consequences of a functional disturbance of the nervous system. The disease, therefore, belongs to the class of the neuroses, and to those neuroses to which, in the absence of a sufficient knowledge of their anatomical basis, the term functional must be applied. Hysteria is further to be described as a general neurosis, for its symptoms allow one to infer a participation of the most various portions of the nervous system—certainly of the brain and spinal cord, and, with much probability, of the peripheral, and particularly also of the sympathetic nervous system.

The most constant symptoms of hysteria are those which show a condition of increased irritability to physical and psychical stimuli. A peculiar mental behavior is partly an immediate consequence of this abnormal irritability, and is in part the expression of greater disturbances of brain power.

Romberg, the celebrated German pathologist, first called attention to the fact that reflex excitability is largely increased in hysteria, but he did not lay sufficient stress upon the emotional character of the disease.

And yet it is this emotional character which seems to explain, not only the infinite variety of symptoms, but also the causation and progress of hysteria. As regards the symptoms, we find that their multitude and apparent incongruity have perplexed and bewildered those observers who were without this clue. Sydenham said that the forms of Proteus and the colors of the chameleon were not more various than the divers aspects under which hysteria presented itself.

Again, all the symptoms, such as convulsive attacks, fainting fits, pain, cough, globus hystericus, difficulty of deglution, vomiting, borborygmi, asthma, hiccough, palpitation of the heart, tenesmus of the bladder, general and partial loss of power, coma, catalepsy and delusion, all flow from the same source, and may be classified as functional spasm and paralysis, anæsthesia and hyperæsthesia, resulting from a painful impression, whether mental or physical, acting upon the emotional portion of the encephalon. Finally, there occur, as symptoms of an apparently altogether different nature, those of altered power of secretion and excretion; yet these, too,

may undoubtedly be recognized as dependent upon an influence of the nervous system.

Being guided by this fundamental principle, we find the transition from physiological to pathological manifestations natural and easy. All symptoms of hysteria have their prototype in those vital actions by which grief, terror, disappointment, and other painful emotions and affections, are manifested under ordinary circumstances, and which become signs of hysteria as soon as they attain a certain degree of intensity.

Efforts have been made to show that hysteria was more general among persons of certain ranks in society, or of certain physical constitution, but all such attempts have proved futile. Nor has the intellect anything to do with it, for some hysterical women are very clever, and others are the reverse. It is rather the mental constitution, which, together with heredity, exercises an all-powerful influence, or, as Maudsley would say, it is the hereditary influence of the nervous or insane temperament.

One thing is certain, that there exists in some persons a much greater readiness to take on the disease, upon the application of the exciting cause, than in others; for in these individuals there pre-exists a peculiar condition of the nervous system, "for which," says Dr. Alison, "we have no more precise or definite expression than *nervous irritability*, or *mobility;* a condition which is more common in women and children than in men, and more common in all persons when in a state of weakness than when in the full enjoyment of muscular strength; in women, particularly, more common about the menstrual periods, and immediately after delivery, than at other times; more common also in those in whom the monthly discharge is habitually *excessive*, or *altered*, as in *leucorrhœa;* or suddenly suppressed. In this condition of mobility, both sensations and emotions are intensely felt, and their agency on the body is greater and more lasting than usual. In persons of this moveable temperament, spasmodic complaints are easily excited, and the tendency to their recurrence is increased by each repetition of them.

Women whose sensibility is blunt, never become hysterical; while those who are readily accessible to impressions coming from without, who feel acutely and are liable to strong emotions are certain to become hysterical if made to suffer mental agony or prolonged physical pain. This high degree of sensibility is not confined to any particular rank of society but may be found as well among the lower as the higher classes. As emotion and anxiety on the one hand, and highly impressionable women on the other, are found in all quarters of the globe, hysteria is not confined to any climate or country. But there is no doubt that the circumstance whether women live in town or the country has considerable influence in the production of the disease. Although hysteria does occur in the country yet it is far more frequent in large towns and cities, where everything tends to weaken and wear upon the nervous system; and where the struggles of life, and consequently painful emotions, are more intense than elsewhere.

The persons suffering from hysteria are of the class above described. They are generally young women, in whom the process of menstruation is in some way or other disordered; and who naturally are of a feeble constitution, or have been weakened by disease, or by their habits of life.

So long as the uterus was believed to be the sole, or even the main factor in the disease, it was necessary to deny its occurrence in men; but Briquet states that of 1000 cases of hysteria, fifty occurred in men; and all authors state that it does occur in males as well as females, though much more rarely, if they are highly sensitive and subject to painful emotions. Although it is true that the different physiological and pathological processes in the female reproductive system have an unmistakable influence in its production, yet this influence merely indicates one of the different ways by which similar functional disturbance of the nervous system may be caused.

The common idea is that hysteria does not occur in childhood and advanced ages, but statistics show the contrary. Out of 820 well marked cases, 71 were of patients under 10 years, and 28 over the age of 45. During childhood the female sexual organs are in a state of perfect rest, and do not give

rise to sufferings; but nervous sensibility is high and reason still undeveloped; so that if painful emotions be frequently repeated or be unusually powerful, we have all the needed conditions for the development of hysteria. Between 15 and 20 years of age, hysteria is most frequent, in consequence of the radical change which the nervous system undergoes at that period. Within those years, girls begin as it were a new existence; they enter upon the world with its passions and excitements; and if painful emotions be frequently and powerfully experienced, hysteria is the inevitable result, provided the system is predisposed to it. After 20 and 25, the disease is more rarely developed, a circumstance which cannot be explained by the uterine theory; for at no other age are the female sexual organs subject to more considerable disturbance. We find however that as age advances hysteria becomes less frequent because the mind has become more settled, and less liable to be disturbed by sudden impressions and emotions.

Some of you have probably read of the Dancing Mania, and the Convulsionists of Saint Medard, together with other epidemics of hysteria in the middle ages. Similar attacks on a smaller scale are not infrequently met with in young ladies' boarding schools, factories, etc., at the present day, and show the extent to which the imitative faculty takes part in producing hysteria.

Hysteria is almost always a chronic disease, which up to a certain point is developed in a somewhat regular way but beyond that the symptoms show themselves in the most confused alternation and succession; we can only enumerate them one after another, and point out their relation and frequency. But never absent are the peculiar psychical alterations, to which particular disturbances of sensibility and motion stand in the closest relation. Around these the remaining symptoms group themselves, according to the intensity and general prevalence of the disease.

At first the complexion becomes pale and sallow, the skin dry and hard, the patient generally loses flesh and complains of headache. The appetite is fanciful and feeble, some patients having a great aversion to anything but water, acids,

confectionery or even chalk and slate pencils. They generally have cold hands and feet and are subject to chilblains; biliary secretion is tardy and constipation habitual. Many hysterical women only go to stool once or twice per week, and in exceptional cases constipation may last even for a fortnight or three weeks. There is generally a large accumulation of gas in the intestines, giving rise to colic or belching. Pain in the epigastrium, which is very tender to touch, is much complained of, and is worse after emotion or walking, but not after meals. There is almost always pain at the level of the middle part of the false ribs on the left side, which the patient generally describes as pain in the heart, and which the physician is apt to consider as inflammation. Pain at the left side of the spine, near the transverse processes of the vertebræ, is also a very constant symptom. Abdominal pulsation is frequent, and menstruation generally troublesome. The blood also is often impoverished, the pulse being quiet, small and feeble. There is always great nervous excitability in these patients. The smallest contrarieties of daily life, which have scarcely any effect on other people are sufficient to upset them. A trifling variation in the day's temperature, a shower of rain, a change in plan, or any disappointment is enough to make them miserable.

The mental condition of these patients thus becomes after a time considerably perverted. They feel depressed and low spirited; they find it difficult to fix their attention on any subject; they cannot read a serious book; their conversation becomes disconnected, their judgment incorrect, their character capricious and irritable. They become extravagantly fond of sensational novels, of balls, concerts and theatres and neglect the graver duties of life.

One of the most frequent forms of spasm is the well known "*globus hystericus*." Ziemssen says that this symptom is only absent in a few of the hysterical, but in individual cases is very variable in its character and in the frequency of its recurrence. Patients usually have the sensation as if a foreign body, generally of the shape of a ball, passed upward from the stomach or some part of the digestive canal, and remained im-

pacted in the region of the throat. The ball frequently arises in this part, without changing its position further. After continuing for a time, the feeling gradually becomes less marked, or suddenly vanishes. The ball seems to flatten. Sometimes, instead of this sensation, only that of a tightening in the throat exists, similar to that which so easily develops itself in the healthy from emotions of anxiety or fear. Some patients do not feel the movement of a ball, but of some other differently shaped body, such as a kernel, a bean, or of some animal creeping about in the throat. Not rarely the sensation of something present is so distinct that patients think they can pull it out of the throat with their fingers. The entire phenomenon is apparently caused by peristaltic contractions of the œsophagus passing upward, and partly by a circular tightening of the pharyngeal muscles. It is almost always present as a forerunner of a so called "fit of the hysterics." It occasionally also takes place in a reflex manner, and may occur in some patients while eating; occasionally particular kinds of food produce the lump, and now solid and at other times liquid food can most easily be taken. The globus occurs not only in the throat, but also in the abdomen, as the sensation of a body rising from the region of the symphysis toward the stomach. Some will declare that they distinctly feel the womb pass upward to the stomach, and then arrive at the throat, a declaration which forms a basis for the oldest theory of hysteria. We meet also with spasmodic strictures of other parts of the body, causing retention or emission of urine, singultus, vomiting, etc.

One of the peculiar features of hysteria is what may be termed its paroxysms or convulsive attacks. Such attacks sometimes take place without a demonstrable cause; in other cases they are the result of over-excitement of the most varied description, occurring after painful emotions, ill-treatment, terror, fright or some shock. The consciousness of being under observation, and the desire to attract attention may cause an increase or exaggeration of this, as of all other hysterical symptoms. In many patients an increased tendency is shown at the menstrual periods. There are two forms of this attack. The first of these has a general resemblance to an epileptic fit.

The trunk and limbs of the patient are agitated with strong convulsive movements; she struggles violently, like a person contending; rises into a sitting position, and then throws herself back again; forcibly retracts and extends her legs, while her body is twisted from side to side; and so powerful are these muscular contortions that frequently it is all three or four strong persons can do to restrain a slight girl and prevent her from injuring herself or others. The head is generally thrown backwards, and the throat projects; the face is flushed; the eyelids are closed and tremulous; the nostrils distended; the jaws often firmly shut, but usually there is *no distortion* of the countenance; the cheeks are at rest, unless when, as often happens, the patient is uttering screams and exclamations. If the hands are left at liberty, she will often strike her head repeatedly and quickly, or carry her fingers to her throat as if to remove some oppression there; or she will sometimes tear her hair, or rend her clothes, or attempt to bite those around her. With all this, her breathing is deep, laboring and irregular, and the heart palpitates. After a short time this violent agitation is calmed; but the patient lies panting and trembling, and starting at the slightest noise or the gentlest touch; or sometimes she remains motionless during the remission, with a fixed eye, till all at once the convulsive movements are renewed, and this alternation of spasm and quiet will go on for a space of time that varies considerably in different cases; and the whole attack frequently terminates in an explosion of tears and sobs and convulsive laughter.

"There is a *variety* of this form of hysterical paroxysm, in which the patient sinks down suddenly insensible and without convulsions; with slow and interrupted breathing, a turgid neck and flushed cheeks; and she recovers from that condition depressed in spirits, fatigued and crying.

In the form above described the symptoms strongly indicate functional disturbance of the nervous system, but in another form the symptoms are referable to the abdominal and other viscera.

"The patient experiences a sense of uneasiness in some part of the abdomen, frequently towards the left flank; a ball ap-

pears to roll about, and to rise first to the situation of the stomach, and then to the throat, where the patient feels a choking sensation; the act of swallowing is frequently repeated; the abdomen becomes distended with wind, loud rumblings and sudden eructations take place; there is much palpitation of the heart; the patient is sad and sorrowful and prone to shed tears." As has been intimated before, after the paroxysms, these patients usually void a large quantity of limpid pale urine, looking almost like water; and this is sometimes expelled during the fit."

The convulsive attacks described above, are often confounded with epileptic seizures, and it is important to understand the points of difference.

"Hysterical attacks occur almost always after painful emotions, ill-treatment, terror, fright or some other great mental or physical shock, while epileptic attacks come on without any appreciable cause. The starting point of the hysterical attack is generally the epigastrium, while the epileptic attack occurs either without any warning, or with an aura of a different kind, which mostly starts from the limbs. In the hysterical attack the loss of consciousness is preceded by globus and a feeling of suffocation; in the epileptic it is sudden. The epileptic patient falls down as if struck by lightning, no matter where he may be; the hysterical patient has almost always time to find a suitable and comfortable place in which to fall. The epileptic convulsion is a sort of tetanus which does not resemble physiological movements, and scarcely ever lasts more than five or ten minutes; the hysterical convulsions always mimic physiological movements, and last from fifteen minutes upwards. At the end of the epileptic attack the patient falls at once into a deep coma, or he recovers consciousness at once, and feels shaken and exhausted; at the end of the hysterical attack there is generally an attack of crying and sobbing. Finally we observe that after the hysterical attack, urine of a peculiar character is passed, which is not usually the case after the epileptic. The chief peculiarity of this urine is its great abundance, amounting to a pint or more at a time. This urine is clear and colorless; almost

inodorous and tasteless; it has a specific gravity of about 1000, and consists of scarcely anything but urinary water. The cause of the large increase of the water is a spasm of the capillary vessels of the skin, which contain less blood than usual, and therefore send additional work to the kidneys. This spasmodic condition may also in some cases cause profuse perspiration, as in a case I will relate later. An important sign is also that the epileptic generally dislikes to speak of his attack or discuss his condition, but the hysterical patient has no such objection. Keeping in mind these points, you ought to have no difficulty in determining the character of the attack. During the convulsive paroxysm the patients are often seized with a delirium which has been compared to that caused by the use of chloroform. The patient is always restless, noisy and sometimes, though rarely, incoherent. The delirium has relation generally to places where, or persons with whom, the patient thinks herself to be; it is like a waking dream.

If we are called to see a patient during a fit, and have no knowledge whatever of the history of the case, the following points laid down by Dr. Watson will enable you to decide beyond mistake. He says: "In the epileptic paroxysm the face is usually livid, and foam which is frothy with air, or red with blood, escapes from the patient's mouth. These are symptoms which we do not see in fits of hysteria. In epilepsy again the convulsive movements are commonly more marked on one side of the body than the other, and the same movements are rapidly repeated; there is a strangling rattle in the breathing, while in hysteria the forcible flexion and extension of the limbs, and the contortions of the trunk, are more sudden, and, as it were, capricious; the respiration is deep, sighing, mixed with cries and sobs, and often with laughter. But, perhaps, the convulsive motions differ most in the face. The epileptic expression is usually frightful; the eyelids half open, the eyeballs rolling, the mouth drawn to one side, the teeth grinding, the gums exposed by the retraction of the lips, the tongue protruded and bleeding, the complexion leaden; while in hysteria the cheeks are red, but at rest; the eyelids are closed and

trembling; if you raise the upper one you will see the eye fixed, perhaps, but it is bright and very different from that of the epileptic, which, if it be not rolling, is dull, projecting and the pupil usually dilated."

You will also have to be on your guard not to confound heart disease with heart symptoms caused by hysteria. "The cardiac affections which you will most frequently find simulated are valvular lesions, dropsy, and alleged displacement of the heart. Dr. Ludlam tells us that "when they do exist, the symptoms of valvular disease of the heart in hysterical subjects are almost invariably associated with chloro-anæmia. The blood is impoverished. The rhythm of the heart's action is disturbed, and there is a fluttering and præcordial oppression, palpitation and an exaggerated impulse against the thoracic parietes. In chronic cases there may be dropsy of the feet and of the face.

"Physical exploration will enable you to decide between real and spurious lesions of the valves. (In *bona fide* disease of the valves, either the first or the second sound of the heart is impaired in its quality, or its place is supplied by an abnormal murmur. If the first of these is implicated or superseded, we know that the auriculo-ventricular valves are diseased; if the second sound is changed, that the semi-lunar valves are the seat of the difficulty. In hysterical affections which counterfeit this form of endo-cardial lesion both the cardiac sounds are normal. With the first sound of the heart, however, we note the soft bellows-murmur of anæmia.)

"Women who are supposed to have dropsy of the heart sometimes complain of great difficulty of breathing after exercise, of orthopnœa, of cramping-cutting pains in the cardiac region, of stifling sensations, of a stoppage of the heart's action, or of a feeling as if it had suddenly turned topsy-turvy, of gurgling, and even as if the heart were pulsating in a collection of water; and yet all these symptoms may be found to represent a spurious affection.

"Then, too, it is not uncommon for a hysterical patient to complain that her heart is displaced. And this may annoy her exceedingly. The mal-location may appear to her to be

either transient or permanent. Emotional influences "bring her heart into her mouth." She suffers from violent palpitation and sometimes from abnormal pulsations in different parts of the body. Her general appearance is healthy, her habit is plethoric, and her looks belie her sensations. The anæmic murmur is sometimes so distinctly heard by such a patient as to induce the belief that her heart is actually dislocated." I think you will find the majority of such patients to be inveterate tea drinkers, or even tea drunkards.

Partial or complete *loss of muscular power* is of frequent manifestation in hysteria and invades by preference the left side of the body. *Hysterical hemiplegia* is by no means rare, and occurs either suddenly, after painful emotions and hysterical attacks, or it creeps on slowly and unawares. It differs from hemiplegia due to cerebral disease from the following points. There is no distortion of the face nor a deviation of the tongue from the median line. The paralysis is scarcely ever complete, and in the large majority of cases more severe in the leg than in the arm. Moreover it is subject to considerable and sudden variations under the influence of emotions or treatment. A woman with hysterical hemiplegia may, under the influence of great excitement, get out of bed and walk several miles, and then after the excitement has subsided relapse into complete immobility. But no such thing is possible in a case of hemiplegia from intracranial disease. Moreover, in the hysterical affection there is generally great weakness of sight, loss of hearing and senses of taste of the same side, and partial or complete anæsthesia of the skin; but no rigidity of the muscles. If an interrupted electric current is applied to the muscles, they contract well enough, but the patients do not feel the passage of the current unless it be one of great power. It is only in cases of very long standing that the electric contractility of the muscles appears diminished. Hysterical hemiplegia is often accompanied by retention of urine, pain in the head, and numbness. Sometimes there are sensations as of pins and needles in the paralyzed parts; and at the commencement there may be febrile symptoms, with sleeplessness and great disturbance of the digestive function.

Hysteria paraplegia is sometimes confounded with paraplegia from myelitis, and other diseases of the cord. Such a mistake should be carefully guarded against. The following are some of the chief points of difference: The commencement of hysterical paraplegia is always accompanied by severe headache, showing the part played by the brain. Moreover there is neither tremor during rest, nor spasms in walking. The lower limbs, too, are feeble; the knees give way under the body, and the feet drag on the ground. The patient is generally able to move the legs well enough when in bed, and may even get out of bed with ease, but after taking a few steps the limbs give way, the gait becomes tottering and the patient falls. Concomitant symptoms are anæsthesia of the skin and muscles of the lower extremities, tympanites, constipation, dysmenorrhœa and retention of urine.

By far the most common form of hysterical paralysis is that which affects the vocal cords and the muscles of the larynx, and is known as *hysterical aphonia*. It almost always appears suddenly, after some violent emotion, or after taking cold; and it may last only an hour or two, or be protracted for years. I have found this form of hysteria to frequently affect women during the climacteric, and Lachesis is the remedy that has done me the best service. It is not difficult to distinguish this kind of aphonia from that due to laryngitis or other structural diseases of the larynx, such as induration, thickening, etc., for an examination with the laryngoscope will reveal a normal condition of affairs; in such cases there is a total absence of any structural lesion, the vocal cords being merely flaccid and incapable of movement. In order, however, to assist in making the diagnosis, especially in those cases where the use of the laryngoscope may be difficult or impossible, I will point out the points of difference between hysterial aphonia and aphonia from laryngitis, as given by Dr. R. Ludlam:

APHONIA FROM LARYNGITIS.	HYSTERICAL APHONIA.
1. Febrile disorder; a quick pulse.	1. Absence of fever; pulse normal.
2. The loss of voice is sudden and complete in proportion to the extent and violence of the inflammation. The aphonia disappears slowly, and is apt to become chronic.	2. The aphonia comes and goes abruptly, and without leaving any local lesion or sequel behind it. The relief is sudden and perfect.
3. There is more or less cough and expectoration, which are paroxysmal, and vary in character in different stages of the disease.	3. Cough is rare in this form of the disease. There is no characteristic expectoration.
4. The inspiration is noisy, harsh and stridulous. At an early period it may be croupal, but later it is less labored and softer.	4. The inspiration is heaving, sighing and spasmodic, the *râle* being moist and softened in its tone.
5. The dyspnœa is attended by an anxious expression of countenance. She may have fits of suffocation.	5. The features are calm and inexpressive. She is more liable to syncope than suffocation.
6. There is complaint of angina. The fauces and uvula are congested and inflamed, with tickling, raw or burning sensations, which extend into the larynx and trachea.	6. There is a complete absence of faucial and tracheal inflammation and suffering.
7. Pains referred to the *pomum Adami*. The pains are sticking and lancinating in character.	7. There is no complaint in or about the larynx.
8. The anterior surface of the neck is sore and tender to the touch, and she will not permit one to handle it roughly.	8. Globus hystericus with clutching at the throat. She tears away the clothing from about the neck.
9. In the acute form the aphonia generally results from taking cold.	9. Never results from this cause unless it has first given rise to some menstrual or uterine disorder, upon which the aphonia is secondary.
10. Has no necessary connection with spinal irritation.	10. Generally accompanied by symptoms of spinal irritation, and by tenderness upon pressure on some of the cervical and dorsal vertebræ.

Such cases of hysterical aphonia are generally relieved at once by the application of galvanism.

You will find hysterical affections of the joints to be very common. Sir Benj. Brodie, the distinguished English surgeon, said that among the higher classes of society, at least four-fifths of the female patients who are commonly supposed to labor under diseases of the joints, labor under hysteria and

nothing else. In very many cases the true state of things can only be discovered by placing the patient under the effect of ether. I have known surgeons of national reputation to be deceived in such patients, and counsel even amputation of a limb; and later seen the same patient cured by faith in the powers of a so-called "magnetic physician." And I may say here, that the harvest field for the so-called miraculous cures of these traveling charlatans is found among those persons laboring under the different forms of hysteria.

We now come to the mental disturbances which are many and various. We have, first, the changes of the character and of the intellect resulting in long continued cases of hysteria, which only stop short of insanity; second, the temporary delirium which arises during the convulsive paroxysm, and of which I have already spoken; and third, the mania, melancholia, and the partial deliriums which, being developed with the hysteria, place their special imprint upon that neurosis, but at the same time are not connected with the convulsive paroxysm.

When the attacks are infrequent, and the disorder not of long standing, the hysterical person may appear in brilliant health. Still, nearly all are nervous and restless; very susceptible and of a vivid imagination; easily fretted about trifles, impatient, irascible, obstinate and headstrong. The senses, too, are very acute; a very strong light, certain sounds, odors, variations of temperature, the electricity in the atmosphere—all affect them strongly; while any serious occupation is exceedingly irksome and causes headache. Sleep is very rarely sound and refreshing; often it is disturbed, troubled by painful dreams and broken by sudden starts. For the most part they are melancholy in temperament, given up to depressing thoughts, sometimes even with vague ideas of suicide. Others, on the contrary, are extremely gay and constantly laughing at the least trifle, or even without any cause; others again are given to tears.

We also meet with neuralgias, spasmodic swelling of the throat, difficulty of breathing, profound inspirations, palpitation, vertigo, stomach disorders and constipation. The men-

strual flow is often irregular, or if regular, it is of short duration and painful, and accompanied with headache, malaise, and irritability of temper. We should also speak of the tendency of the hysterical person to indulge in hyperbole, and to invent the most romantic and extravagant stories. Their fierce and ungovernable desires recoil before nothing; the facility with which they give themselves up to eccentric acts, and the erotic ideas which often come to complicate the disease and become the starting point of new passions.

Beside the usual symptoms found in cases of hysteria or of mania when existing separately, there are others which appear characteristic of a combination of the two disorders. Thus the uneasiness of such patients, whilst not reaching the point of rage, is yet marked by an incessant need of moving, and activity; by a strong tendency to break, destroy, and upset everything within reach. The patients complain of a difficulty of breathing, and in the midst of the periods of restlessness have real convulsive paroxysms which greatly aggravate the intellectual disturbances. In the more calm and peaceful moments erotic desires, without being constant are frequently present in a marked degree. Young girls, even the most reserved and ladylike will experience a passion for their physician, or the first person they meet; the sound of the voice, or even of the footsteps of a man will affect them strongly and throw them into a state of passionate desire; their thoughts run upon marriage, their eyes become moist and confused, their gestures alluring, and they offer a singular contrast of modesty and boldness; often indeed they go so far as to talk of husband and children, when they have neither; and even imagine themselves pregnant and about to be delivered.

Aside from these points hysterical mania presents the same course and termination as does mania in general. Sometimes a cure takes place rapidly, but more frequently the case runs into a chronic state of protean nervousness in which the intellect is more or less disturbed.

General melancholia is not common, but we find a partial delirium; with or without hallucination. Some patients have troubles of taste and smell; are pursued by fears of being

poisoned and experience feelings of hatred and revenge toward those around them. Others are tormented by scruples of conscience; accuse themselves of crimes that they have not committed, and even attempt suicide. Such conditions are generally curable.

When hysteria is developed in any place where many impressionable women are gathered together, it easily becomes epidemic, and the hysterical convulsions, the hallucinations, ideas of diabolical possession, ecstacy, etc., are easily spread through crowds by the faculty of imitation, and I should earnestly advise you to read the history of some of the epidemics of this kind.

The following case is reported by Dr. F. W. Payne: "A patient who had been under allopathic care was placed in my hands for treatment. She was lying in an apparently unconscious state, the limbs and jaws rigid; the forearms flexed on the arms, which were firmly pressed to the side; the eyes fixed and drawn somewhat to the right; eyeballs slightly sensitive to touch; a constant succession of tears rolling down the cheeks, and the beat of the heart very irregular and feeble. She would occasionally utter a groan or a sigh, and press her hand forcibly over the region of the heart as if suffering there. At other times the limbs would become relaxed, and she would frequently raise herself in bed and gaze vacantly about the room for a minute, and then, if not restrained, would throw herself forcibly upon the pillow again, or fling herself from one side of the bed to the other, which latter, by the way, is a very common symptom. After twenty-four hours this form of attack ceased, and she became very busy packing and folding her bed-clothes, and placing them carefully under her head, or elsewhere about the bed, at the same time guarding them with watchful eye, allowing no one to touch or take them. If this were attempted she would strike with her full strength. She was frequently talking, laughing loudly, or scolding vehemently; would imagine herself surrounded by many friends, shaking hands with them and calling them by name. She asked no questions and returned no answers. During this time, which lasted four days before relief was given, she

took no nourishment voluntarily. After several remedies had been unavailingly given, the irregularity and feebleness of the heart's beat drew attention to Hydrocyanic acid[30], which was given with the most favorable result. She had no more threatenings for four months; then she commenced as before, but the attack immediately yielded to one dose of Hydrocyanic acid[30]."

Here is another and lighter case: "A lady about to be married became very nervous from overwork and mental anxiety. She had several hysterical attacks daily, among the symptoms of which, the following seemed characteristic of the remedy chosen. First, a twitching of the fingers; this extended into the hands, arms and body (down to the diaphragm), and convulsive remittent shaking of the upper part of the body and of the arms. Gave Cuprum[6], a dose just before and just after each paroxysm. That day she had three, the next day one, and the last a light one, a week later."

Some medical men are very apt to advise their hysterical patients to marry, as if marriage were a panacea for all ills, but this is a mistake; for we know that not only many married women are hysterical, but in many cases the malady is only developed after marriage; and is consequent upon the unpleasant emotions apt to arise in that state when it is entered upon from the motives and feelings so often prevalent. We must also remember that an hysterical wife will be apt to prove to be anything but a source of comfort or happiness to her husband and any family she may have; that there is great tendency to miscarriage in hysterical women, that their children are often stillborn, and that if they live, they are generally delicate and sickly, and liable to inherit hysteria and other nervous affections. Marriage acts beneficially in those cases where the home surroundings of the patient are unfavorable, and when in consequence of marriage she is rid of all trouble, anxiety and painful emotions.

Medical Treatment.—In our treatment we should distinguish between the hysterical condition and the hysterical fit. The latter is by far the more easily controlled as you would suppose.

Asaf. will help in hysteria of young women complaining of a gone empty feeling in the epigastrium, which is not a pain, but "it hurts them"; pulsations in the same place, which come on about eleven o'clock and make them feel faint.

For the *nervous condition—general increased sensibility:* Ignat., Cyprip., Sepia and Stramon.; for *heightened sensitiveness:* Coccul., Stramon., Platina, Pulsat., Acon. and Nux vom.; for *irritability* and *impatience:* Gelsem., Sepia, Pulsat., Nux vom., Hyosc.

Variable disposition: Ignat., Pulsat., Stramon., Moschus, Platina, Sepia.

Constant brooding: Nux vom., Ignat., Sepia.

Constant and *excessive dread:* Acon., Pulsat., Platina.

Fidgety expectation: Valerian.

Persistent silence, or constant moaning and lamentation: Nux vom.

Bodily Conditions and Symptoms.

Constant troublesome sinking at the stomach: Asaf., Cimicif., Gelsem., Hydrast., Ignat.

Shortness of breath and cold feet: Calc. carb.

Oppression of chest: Moschus and Ignat.

Sleeplessness: Cyprip., Gelsem., Ignat., Nux vom.

If we consider the cause so far as ascertainable, we find fright: Acon.; disappointment and grief: Ignat.; prolonged watching and nursing: Nux vom., Ignat., Cyprip.; intense or continual mental strain: Cyprip., Phosphor, Cinchon., Nux vom.; ovarian or uterine irritation: Cauloph., Cimicif., Bellad.

Bellad. will often be of marked benefit in controlling the convulsive paroxysm.

I can of course touch only briefly on the indications for the proper remedy, for as hysteria may simulate any disease under the sun, you will find that no disease will require a more searching study of your Materia Medica, but above everything it is necessary that your patients should be built up by plenty of good nourishing food to which they often object; and should be placed in as pleasant a situation as possible, free from care, anxiety and worry.

Hypochondriasis.

Dunglison gives the following definition of hypochondriasis: "This disease seems to be a species of neurosis, and of mental alienation, which is observed in persons who in other respects are of sound judgment, but who reason erroneously on whatever concerns their own health. Hypochondriasis is characterized by disordered digestion, without fever or local lesion; flatulence; borborygmi; extreme increase of sensibility; palpitations; illusions of the senses; a succession of morbid feelings, which appear to simulate the greater part of diseases; exaggerated uneasiness of various kinds; chiefly in what regards the health, etc. The disease almost always appears at adult age; most commonly in irritable individuals, and in those exhausted, or rather in those in the habit of being exhausted by mental labor, domestic work, etc." All of which reads very much like an account of hysteria as it appears in women, but there are points of difference.

Much confusion exists in regard to the boundary-line between what is popularly called hypochondriasis and real mental disease, and this is due to the way in which the two diseases run together in real life; in a particular case it is difficult to tell when one ended and the other began; but properly speaking the hypochondriacal states represent the mildest, most moderate forms of insanity, and have peculiarities which distinguish them from the other forms of melancholia. These states share in the general characteristics of dejection, sadness, depression of mind, diminished activity of the will, and of a delirium which corresponds to this mental disposition, they have these distinctive points of their own; that in these states the emotional depression proceeds from a strong *feeling of bodily illness* which constantly keeps the attention of the patient concentrated upon himself; that, consequently, the false opinions relate almost exclusively to the *state of health* of the subject, and the delirium turns constantly upon apprehensions of some grave malady; upon unfounded and curious ideas regarding the nature, the form, and the danger of his disease. This feeling of bodily illness is sometimes vague

and general; sometimes it applies itself to particular parts and organs. It often depends on irritation of the nervous centres arising from peripheral disease, often very obscure and concealed, of the viscera. It is also provoked under the direct influence of moral causes, such as reading medical books, meeting other hypochondriacs, etc. Occasionally medical students will have an attack of hypochondriasis lasting for months, induced by reading about various diseases, and then searching for their likeness in himself.

These morbid sensations are always increased through the direction of the attention to them, and, when the disease has become fully developed, such sensations may, through the direction of the attention to this or that organ, be awakened, displaced, and called forth anew in each organ of the body in succession. As to the part which the intellect plays in this disease, it may be said that in spite of this emotional disorder, and of the false conceptions, the association of ideas is unimpaired; the abnormal sensations and ideas are logically connected throughout and justified by reasons which are still within the bounds of possibility.

Many physicians, and people in general, look upon all the complaints of the hypochondriac as depending upon pure imagination and illusive sensations, but this is entirely erroneous and mistaken, for the hypochondriac really feels and experiences all the pains, all the disagreeable sensations, in a word, all the morbid *symptoms* which he describes, and this corresponds to an objective reality in the condition of the organ affected. The mistake in the case of hypochondriacs does not lie in the physical sensations, but the *diagnostic conclusions* which they draw from these; inasmuch as they ascribe their sensations to this or that organic disease from which they suffer. Therefore if any hypochondriac complain of oppressed breathing; pains in the stomach, or abdomen; headache or the like, we may presume that these affections really exist; but should he, therefore, conclude that he is affected with consumption, cancer of the stomach, heart disease, or softening of the brain, the error lies in his *conclusions*, not in his feelings. Still the disease does not depend on these

conclusions, but on an *abnormal dread of disease*, and an *anxious solicitude about his health*; in consequence of which, the patient greatly over-rates his bodily feelings and sensations, and immediately dreads from the slightest pain and the most unimportant functional disturbance, the most serious results. Hence also the anxious care and minute attention with which all the patients of this class observe the functions of the different organs of the body, examine their urine, feces, expectoration, etc. Almost constantly occupied with the state of their health, they readily believe themselves afflicted with every disease of which they hear; and constantly read medical books; they have a great propensity for acting as their own physician, and keep dosing with patent medicines. He often feels his pulse, examines his tongue and frequently finds in these investigations causes for hope or fear, which he takes pleasure in relating to those around him. The great desire to be cured induces frequent changes in his physician, and he often changes his opinion as to the nature of his disease, as he applies to his own case all he reads of or hears. Hence the disposition of the patient undergoes a marked change; he becomes dejected, sorrowful, morose, low spirited, fearful, suspicious and uneasy. Everthing wearies him, and he is very easily fatigued. At the commencement this state experiences many remissions; and the paroxysms assume the form of an irritable, restless, and distrustful disposition, or of a mental apathy which may go so far as to produce a weariness and disgust of life. An undefined yet vivid feeling of illness torments and annoys the patient in an obscure manner. All sensations are watched and seriously commented upon, and analysed in the sense of the ruling gloomy and anxious frame of mind, and he often expresses his fears with an exaggeration of which he himself is half aware, and in the most graphic and ludicrous manner. The patient who exhibits only the most insignificant symptoms of disease, speaks of apoplexy, asserts that he is half dead, that his heart is dried up, or petrified; his nerves are burning coals, etc. Many spend hours before the glass examining their features, complexion and appearance of tongue. Others, again, may refrain from all

mental exertion or loud speaking, will not rise from bed, or eat a morsel for fear of aggravating their condition.

It may, in some cases, be very important to distinguish between hypochondria and melancholia; for a person suffering from the former would most likely be hanged were he to commit murder, while the latter would be sent to an asylum. Prichard, one of the older writers, thus clearly marks the distinguishing line; he says "that a hypochondriac is in full possession of his reason, though his sufferings are not so dangerous or so severe as he supposes; but if he declares that his head or his nose has become too large to pass through a door-way, or displays any other hallucinations, he is a lunatic; his disorder has changed its nature." Hypochondriacs, however, low-spirited or dejected, also suffer differently from persons affected with melancholy. The apprehensions of the former are confined to their own feelings and bodily health. On other subjects they converse cheerfully, rationally and justly. But melancholics view all things through a gloomy medium. They despond on all subjects, and are mentally miserable, and independently of any severe bodily sufferings. The affections and sentiments of the hypochondriac, especially to his former friends and connections, are not in the unnatural or perverted state observed in all forms of insanity.

Beside the mental peculiarities, we have, as has been stated, innumerable morbid symptoms of the various organs. Thus, for instance, the digestion suffers, the tongue is loaded, the appetite increased or diminished, the bowels are constipated and digestion is accompanied by great development of gas, whereby tension is produced in the hypochondriac regions, pushing up of the diaphragm, and causing a feeling of oppression. Such persons are very often afflicted with hemorrhoids, abdominal pulsations, palpitations of the heart, cerebral congestion and disturbed sleep. In many cases it is impossible to decide whether, and to what degree, these variable symptoms are due to such primary disorders of the viscera under the influence of which the hypochondria has arisen, or how far they are due to some central cause in the nervous system. The physician has always to make a most careful examination of all the suspected organs.

It is evident that the disorder may arise in two different ways—either from some physical cause, or mental, but usually from a combination of the two.

Hypochondriacal states are extraordinarily frequent in young people, and more rare in advanced life, and they are more rare in women than in men, it seeming to be among men what hysteria is to women; but neither disease confines its attention to one sex.

The remedies spoken of under the head of melancholia will come well in play here; but one or two will be of special value:

1. *Nux. vom.* will occur to the minds of you all as presenting a similar picture to the one we have just been describing; it has: Ill-humor and displeasure, with despair and disgust of life, or with great wrath or irritability; indolence and repugnance to every movement and occupation, with incapability for mental exertions, and great prostration; inquietude and solicitude on account of his disease, and constant inclination to speak of his condition, and to complain of his sufferings. Dulness of head, and pressive pain, as if a nail were driven into his head; painfulness of hypochondria and the upper part of the abdomen; constipation and hemorrhoids.

2. *Lycopodium* is called for by a marked hypochondriacal mood, with sorrowfulness and inclination to feel unhappy; thoughts of death and dread, with anxiousness at the heart; distention of abdomen, with collection of gas and rumbling. Tension in hypochondria as from a hoop.

Calc. carb., Cinchon., Natr. carb. and Sulphur will frequently be called for according to the characteristic symptoms of each.

According to Dr. C. P. Hart, the remedies most frequently called for will be found in the following list:* Anacard., Arsen., Asaf., Aurum, Calcarea, Cannab. ind., China, Cimicif., Conium, Ignat., Mercur., Natr. mur., Nux vom., Petrol., Platina, Pulsat., Sepia, Stannum, Staphis., Sulphur.

"*Asafœtida.*—Hypochondriasis attended with flatulence, torpor of the liver, indigestion, constipation, loose cough and great depression of spirits.

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* Diseases of the Nervous System, by Chas. P. Hart, M.D.

"*Aurum.*—This remedy is best suited to male subjects, especially such as have a loathing of life, or a suicidal tendency; they are extremely melancholy, fearful, taciturn and sullen. Its sphere also embraces religious melancholy, with vertigo, anæmia, and vascular and nervous depression.

"*Cannabis ind.*—Strange illusions concerning one's health; great depression of spirits, amounting to despair, with apprehension of approaching death; constantly studying his own symptoms and theorizing about them; religious melancholy; depraved appetite, with pain in the stomach, flatulency and cold extremities."

Nux vomica.—According to Bæhr, "holds the first rank among anti-hypochondriac medicines. It corresponds most completely to all the symptoms of the digestive apparatus, to their appearance after a meal, to the disposition to gaseous flatulence and to constipation. Other circumstances of great moment are: the origin of the hypochondria from sedentary habit; deficient exercise with rich living and excessive mental exertions; use of stimulants in order to keep awake nights; moreover the excitability of the temper which induces an ebullition of anger from the least provocation; continual cloudiness of the head, with more or less prominent signs of cerebral congestion, more particularly in the case of patients who are fond of wine and good living."

Stannum.—Of this remedy Hartmann says: "It frequently has a marvellous effect in various spasmodic hypochondriac ailments, which mostly originate in the ganglionic system. By walking about, the patient is greatly relieved, whereas his distress returns again in a state of rest, which he would like very much to indulge in, owing to his feeling continually weak and weary, both mentally and physically; this makes him sad and melancholy, and he often feels so discouraged that he could almost weep. If with these symptoms are associated a stupefying pressing distress in the brain, as if the skull were in a vice, or other abnormal sensations in the brain, illusions of hearing, distress in the stomach, with irregular appetite, feeling of emptiness in the abdomen, constipation, exhausting night-sweats, etc., the patient feels in the highest de-

gree miserable, and by exaggerating his ailments, renders life disagreeable to those around him. It is to this kind of hypochondria that Stannum will be found to correspond, and where it will always be found effective."

Staphisagria.—This remedy, according to Berjeau, may be employed when there is hypochondria resulting from masturbation, with great taciturnity; constant uneasiness as to the state of one's health; anxious imagination; imaginary fears; queer notions that expose the patient to the suspicion of being thought crazy; great deficiency of animal heat, and tendency to take cold; or when the memory is weak and confused, and there is giddiness and sleepiness; the eyes are deep sunken, red and lustreless; the hair falls off; there is gnawing toothache, and caries of the teeth, which are very brittle; a dry cough, aggravated frequently after eating, and indigestion attended with great flatulence, the stools being dry and lumpy. The urine is of a deep red or yellow color, with brick-dust sediment; there is continued loss of prostatic fluid, and the sexual desire is impaired; the penis is relaxed, with dull and contusive pain in the testicles.

Dr. C. P. Hart says: "This remedy takes high rank in all cases of hypochondriasis attended with seminal emissions, weakness of the lower extremities, and great prostration of mind and body, the result of having led a dissolute life."

LECTURE XVII.

Chorea. Catalepsy. Somnambulism.

Chorea.

(In the preparation of the following lecture I have drawn largely from a paper by Dr. J. C. Burgher, of Pittsburgh, published in the *Transactions of the American Institute of Hom.*, in 1877.)

To-day we will consider somewhat briefly a form of nervous disease which in many respects resembles hysteria and which like it is characterized by abnormal muscular movements and, in most cases, a disturbed mental condition. I refer to Chorea, called also St. John's dance, or St. Vitus' dance; this latter name being given from the Sicilian Saint Vitus whose remains were believed to rest in a convent in Westphalia, to which pilgrims from all parts of the world were attracted in order to be cured of the dancing mania, such as was so widely spread as an epidemic in the middle ages.

We understand by chorea, a neurosis, of which the seat may sometimes be the brain alone, sometimes the entire nervous system, characterized by incessant twitchings or jerkings of groups of muscles, which sometimes are spontaneous in their origin, and sometimes are excited by voluntary impulse, which occur almost exclusively in the waking state, and are accompanied by a more or less developed mental disturbance. It is a very unpleasant disease, but, as a rule, neither painful nor dangerous, and is not attended with fever. The patient is neither deprived of consciousness nor volition. The ordinary movements of the body performed under the guidance of the will are disturbed and made uncertain; the voluntary action is arrested and the limbs forced to take another direction, rendering the movements uncertain and imperfect. All the voluntary muscles of the body are obnoxious to these irregular clonic spasms.

Chorea is essentially a disease of childhood, and though cases are on record where it has affected new-born children and even the aged, yet three-fourths of the cases occur between the periods of the first dentition and puberty. Niemeyer says that it is most frequently met with between the ages of six and fifteen. Girls are more subject to it than boys, in the proportion of nearly three to one; perhaps on account of their more delicate organization and the preparative changes going on before menstruation.

The beginning of a simple case of chorea may be as follows: The patient, a boy of about ten years, who attends school, becomes irritable, loses his appetite and does not care to go out and play with his mates. He becomes pale and thin, and sits by himself. His temper undergoes a marked change; he becomes morose, irritable, fretful, lazy, forgetful, and complains of headache, dizziness and chilliness. There may also be palpitation of the heart, loss of appetite and general restlessness. In a little while some movement of the hand or fingers, some twitching of the face or dragging of one foot when he walks attracts the notice of parent or teacher. He may be punished, with the idea that such movements are the result of bad habits or viciousness, but instead of doing good it only increases the trouble. These jerkings and convulsive movements cease at night, when he rests uneasily and is disturbed by bad dreams. This is generally the condition we find when summoned to see our patient. What next is the natural unchecked course of the disease? If neglected it will not be long before the movements become general; in some cases the muscular dance is so severe that voluntary movements are utterly impossible and the patient becomes helpless. He cannot sit, stand or lie down with comfort, and in walking the feet may drag along as if paralyzed. If he attempts to stand his knees give way and he drops to the ground; and the whole body is so plunged, jerked and shaken about that he cannot even sit still on a chair, and is thrown out of bed when lying down. He may have to be dressed like a baby, and his clothes are so much pulled and rubbed about the body that abrasions of the skin and eczematous eruptions are often produced.

The vocal cords may be affected, and as a result there is a certain degree of aphonia, so that the speech is husky and subdued, though in some cases it is shrill and squeaky. Incoordination of the lips and tongue give rise to difficulties in articulation which are quite distressing, the words being "snapped" and cut short.

In most cases, however, voluntary motion is not entirely abolished, but only impeded. Although the involuntary motion is incessant, the patient nevertheless succeeds in carrying out voluntary movements. It is true that he performs them in an awkward, clumsy and roundabout way; the movement which is intended is commenced, but is, before it can be carried out, interrupted by spasms. The patient then begins to manœuvre, and succeeds after a time in accomplishing his purpose; but at other times the effect of the will appears to intensify the spasm, which from having been limited to the face and hand may then involve the whole body. A simple effort on the part of the patient to subdue the spasm, and to keep his face and limbs quiet, is often sufficient to increase the violence of the twitches.

The muscles of the face are usually first affected by contortions, thus all kinds of physiognomical expressions are produced, according as the spasm affects the different muscles, one after another, and the general impression produced on the observer is decidedly laughable. The patient first frowns, then laughs, squints, winks with his eyes, stares, moves his nose from one side to another, grinds his teeth, puts out his tongue and as quickly puts it back again, bites the tongue, lips and inside of the cheek, and grins like a monkey. In the muscles of the lower jaw the spasm is sometimes so violent that teeth are broken out by it. Mastication becomes difficult or impossible, and the first act of deglutition is impeded; the mouth is distorted and the expression vacant. The speech may become quite unintelligible. The patient begins a sentence, but cannot finish it, because the tongue is in his way; sometimes he is only able to pronounce one syllable at a time. When asked to show the tongue, it is suddenly protruded and a moment after as suddenly retracted. This sudden protru-

sion and withdrawal of the tongue, termed the "choreic thrust," is almost characteristic of the disease. He cannot sing because respiration is jerky and explosive; the air is not properly husbanded, and although great efforts may be made, there is no result except great fatigue, from excessive disorder in the co-ordination of the muscles. Von Ziemssen has seen choreic movements of the abductors and other muscles of the vocal cords, and insufficient tension of the latter, by the laryngeal mirror; and this explains why the voice should be changed in character, monotonous and lowered in pitch.

In the progress of the complaint, a greater number of muscles are implicated and the spasmodic action is intensified. The muscles of the extremities and trunk are involved. The patient writhes, twists the shoulders, and contorts the body, the shoulder is drawn up and pushed down again, the arm jerked about, and the hand and fingers thrown in all directions. The patient cannot put a cup of tea to his mouth without a good deal of management, and is apt to spill it all over himself or his neighbor, he is unable to work, write, play on musical instruments, or button his clothes. The walk is unsteady, one foot is rather dragged than lifted, and the patient moves or sways from side to side, while the unequal and irregular respiration show that the diaphragm and abdominal muscles are also involved.

Allen McL. Hamilton says that he does not think the choreic movements are always increased by the effort of the will to stop them, and has been led to suppose that chorea might be divided into two varieties, viz., one in which the movements are increased with the exercise of the will, the other when they are most violent in a state of rest. He considers the movements of the hands characteristic. He says there is a prehensile movement of the fingers and a rubbing of the ball of the thumb and ends of the fingers. There is a swinging of the arm, and a shrugging of the shoulder, as if the patient had on large or uncomfortable underclothing. There is a trivial point which may be of interest, and I mention it because it is unique. I allude to the habit which such patients have of rubbing the seam of the trousers leg by the hand

which is affected; for these movements go on where the arm hangs by the side, and when the attention is not directed to it.

An interesting form of the disease is that known as hemichorea, which is limited to one side of the body. It is most frequently seated in the left side, which is also as a rule more severely affected in bi-lateral chorea than the right; the unilateral character is not confined to the extremities, but extends to the face and the apparatus for articulation and swallowing.

In some cases the nerves of the affected parts are tender to pressure, and there may be painful sensations arising spontaneously; and certain portions of the spine may be unduly sensitive.

There is generally muscular rest during sleep, but this is by no means constant. In many cases there is great difficulty in going to sleep, owing to continuance of the muscular spasm, and sleep when obtained is not profound, but broken. The patient moans and grunts, and throws himself about in a restless manner. On awakening in the morning there is at first muscular rest, but the spasm soon recommences, more especially on getting up and making an attempt to dress.

Mental disturbances are rarely absent, and become more developed when the disease lasts a considerable time. In the lighter cases they are but slightly developed, but in the severer cases the character seems to change a great deal; good-natured persons become passionate, the peaceable, quarrelsome; the intelligent appear childish and simple. The judgment is perverted, and ideation slow; there is indifference and want of respect to parents and friends; the memory is impaired and there is great want of attention. Some patients are shy and timid, all are more or less silly. In some, mania and imbecility follow after a time. These symptoms are not only observed toward the end, when they might be ascribed to exhaustion and anæmia, but are often present at an early period of the complaint. In connection with the stupid look, and the apish behavior these signs of depressed intelligence and altered character, especially when occurring in older children at and after the period of puberty, are apt to terrify the patient's family, and the physician is often obliged to reassure them that idiocy will not result.

Differential diagnosis.—"As a rule chorea is easily distinguished from other disorders. It differs from the clonic spasm of acute cerebral disease by the absence of fever, delirium and coma; from epilepsy by the absence of unconsciousness, and the continuous movements, while epilepsy is characterized by recurring attacks of sudden loss of consciousness and convulsions. Hysterical outbursts differ from the spasms of chorea by their remissions and by the partial unconsciousness of the patient. Paralysis agitans consists in weakness and tremor, rather than spasmodic contraction and belongs to the diseases of later life. Facial spasm differs from the choreic in being always of equal intensity, and in generally being confined to one side of the face and to the same group of muscles.

The *exciting causes* are frequently such as act upon the emotions, viz.: fright, fear, terror and anxiety, and it occurs particularly in children who have inherited the nervous temperament from the parents. Hysteria of the mother is most effective in this respect. Chlorosis, anæmia, dysmenorrhœa and scarlet fever often precede the outbreak of chorea, and it would seem to be sometimes caused by the habit of masturbation. It is no doubt at times contagious, that is, taken by imitation by those children whose nervous system is very impressionable. Dr. Allen McL. Hamilton says: "The disease often follows scarlatina or other zymotic febriculæ, or takes its origin from an attack of acute rheumatism,—most frequently this is the rheumatic fever, but even simple rheumatism of the muscles without febrile disturbance and articular affection may give rise to it. It may also result from over-study, bad air, bad food or worms. This investigation in regard to its occurrence among school children showed that over twenty per cent. of the young children in the public schools of New York are affected with choreic affections of greater or less gravity. These varied from movement of the hands and twitching of the facial muscles to such as attracted the notice of visitors." In some cases the disturbance of the nervous system, which causes the outbreak, is not of a mental but of a reflex nature, owing to some peripheral irritation spreading to the nervous centres.

The pathology of chorea is yet unsettled; most writers

agree with Drs. Todd and Russell Reynolds in thinking that the origin of chorea is cerebral and not spinal; but there is no agreement as to the location. Dr. Reynolds thinking it to be in the corpora striata, other observers locating it elsewhere.

The embolic theory of the production of chorea has received the support of such men as Mackenzie and Hughlings Jackson. Bastian adopts the theory that the emboli consist of masses of agglomerated white corpuscles, and that the location of the lesion is in the corpus striatum. Dr. Hamilton says he is inclined to accept the embolic theory, not only because the paresis of the limb may precede any muscular movements, but because lesions in or about the corpora striata, which produce hemiplegia, may also give rise to choreic movements. We must bear in mind, however, that in many cases of chorea, some very able and expert pathologists have been unable to find any emboli; and also that in undoubted embolism of the cerebral arteries there is never any appearance of chorea. Dr. Dickinson found lately, in seven instances, remarkably uniform appearances, viz.: hyperæmia or distention of all the vessels of the brain and cord, but more particularly of the small arteries, which was succeeded by effusion of blood with consequent irritation and injury of the surrounding tissue. The parts of the brain which were most affected were those between the base and the floor of the lateral ventricles, in the track of the Sylvian arteries; the substantia perforata, the corpora striata, and the beginning of the Sylvian fissures. In none of these instances was any trace of embolism, such as decolorized fibrine, detached clots, or signs of impaction to be found.

Dr. Althaus says, and his views appear to me the most reasonable of any with which I am acquainted:

"1. In a large class of cases chorea is owing to that alteration in the composition of the blood which is associated with rheumatic fever (and I would add scarlatina), and which is known to affect the nervous centres as well as other organs.

2. In another large class of cases chorea is produced by direct irritation of the nervous system, which is either purely mental in its nature (fright etc.) or partakes of a reflex character.

3. Endocarditis exists in the large majority of cases of chorea; and is either pre-choreic, when the rheumatic influence has to be accused; or post-choreic, when we assume it to be due to irregularity in the action of the cardiac muscle; but endocarditis cannot be considered a cause of chorea.

4. Chorea is owing to hyperæmia of the middle cerebral artery, and more particularly of the corpora striata. In cases which end favorably, this hyperæmia does not proceed to rupture of the blood vessels; but in fatal cases effusion of blood, and consequent injury to the surrounding tissue takes place.

5. A similar condition of the spinal cord, more particularly in the region of the posterior horns, is generally associated with the cerebral changes; and when mental symptoms have been prominent during life, it is probable that the cineritious substance of the convolutions of the brain has also been in a state of hyperæmia.

Prognosis.—The prognosis of chorea is generally favorable, as the disease is rarely fatal except from some complication such as dropsical effusion, epilepsy, paralysis or organic diseases of the heart, brain or spinal cord. It is, however, very apt to become chronic. When the irregular movements are confined to the muscles of one arm or those of the head, especially when occurring in the adult, they are rarely cured. The susceptibility of the nervous system to impressions is less in the adult than in the child; hence the probability of existing organic lesion is greater when the disease occurs in advanced life, especially if the limited character of the disease implies a local seat. When occurring during gestation it is liable to produce abortion or premature delivery.

Treatment.— In speaking of the treatment of this disease, Von Ziemssen says: "From the most energetic treatment with frequent blood-letting, and regularly repeated purgations, as advised by Sydenham, to the most complete therapeutic nihilism, which affirms the uselessness of all remedies on the ground of the theory of the self-limited nature of the disease, we find all stages of transition."

At present the principal remedies in vogue in the old school, are strychnia, arsenic, iron in its various forms, phosphorus,

cod-liver oil, calabar bean and zinc; and in a less degree the bromides, valerian, and asafœtida. It is needless for me to say that each in turn is found useless and cast aside, simply because they have no law guiding their choice.

Each case should be individualized and treated by itself; so far as possible all exciting causes should be removed and carefully guarded against. If there are coexisting disorders they should be met by the carefully selected homœopathic remedy.

The diet above all things should be regulated with judgment. Plenty of fresh air and sleep are absolutely essential and should be insisted upon; the child should be at once taken from school and all brain work forbidden; exercise in the open air and sea bathing is often of service. In severe cases, when the patient is being exhausted by constant movements and loss of sleep, nutritious diet, an occasional sponge bath with tepid water, exclusion of all company and freedom from excitement will help us in our cure.

Medical treatment. — *Act. rac.* or *Cimicif.* This remedy has been a favorite one with many physicians, and among them Drs. Scales, of Woburn, Whittier, of Fitchburg, and Packard, of South Boston; it has generally been given in the lower dilutions. It is said to yield very satisfactory results in cases of chorea in patients with a rheumatic diathesis, those suffering from uterine irritation, and in cases resulting from physical causes. The abnormal movements consist of twitching, jerking, twisting motions, usually unilateral and confined to the left side, often attended by pains of a neuralgic or rheumatic nature; depression of spirits and insomnia.

In a discussion before the Mass. Hom. Med. Soc. some few years ago, Dr. A. J. French, of Lawrence, spoke more highly of Nux vom. than any other drug, and Dr. N. R. Morse, of Salem, said that Nux vom. was the most generally indicated and successful remedy in this infirmity. He had cured many cases with a single dose. His indication for Nux vom. was a twitching of the jaws and upper extremities. Other symptoms are: a sensation of numbness in the affected muscles; unsteady gait; the feet drag; movements renewed by the least touch, but relieved by firm steady pressure; impaired appetite; con-

stipation; despondency; all the symptoms worse in the early hours of the morning.

Dr. E. U. Jones, of Taunton, advised *Ignatia* in cases, in which the left side was principally affected; it should be thought of especially when the convulsive twitchings are brought on by fright, or grief; are worse after eating; better lying on the back; sighing and sobbing are also characteristic.

Calcarea carb. is useful in the chorea during second dentition, or in leuco-phlegmatic patients; also when the disorder is brought on from fright or onanism; there is the usual twitching of the muscles; trembling of the body; falling down; great weariness and inability to walk.

Crocus sativa seems well chosen in the following case, which it cured. A girl, 15 years of age. Immoderate laughter without apparent cause; inability to walk from fear of falling, and loss of power in the hands so that she could not use a knife or fork; also indicated by spasmodic contractions of sets of muscles; jumping, dancing, laughing, whistling; wants to kiss everybody; epistaxis of dark stringy blood; changeable disposition.

Hyoscyamus is a favorite remedy, but not one that I have often used; Dr. Morse places it next to Nux vom. The movements of the head are from side to side; the arms are thrown about, he misses what is reached for; the gait is tottering; he is talkative and easily excited to laughter.

The symptoms calling for *Stramonium* are exceedingly characteristic—the convulsive movements have the feature of affecting the parts of the body crosswise, as, for instance, the left arm and right leg, while the other limbs are unaffected; or the muscles of the head and neck are violently agitated; or the spasms may involve the whole body, compelling the performance of the most grotesque leaps, motions and gestures; clasps the hand over the head; full of fears; puts hands to the genitals; weeps and laughs alternately.

Sulphur may be useful in chronic cases after suppressed eruptions, or when eruptions characteristic of the remedy are present; the patient is peevish, irritab and obstinate.

Cina or *Santonin* are called for by decided worm symptoms; and other remedies as indicated by the symptoms laid down in the Materia Medica, for I have only spoken of a few.

Jahr speaks highly of *Causticum* in the so-called chorea minor, with contortions of the limbs, without any derangement of the mental faculties, especially if the attacks are caused by some violent emotion and *Ignatia* had failed to relieve.

Catalepsy.

Among the various diseases which go to make up the nosological list, there is one, fortunately quite rare, which belongs to the group of unusual neuroses, and whose manifestations are as strange and proteiform as its phases are variable and unexpected. I refer to catalepsy. The physician who has never been in attendance upon a cataleptic will always receive with distrust, the strange accounts given of this disorder, so incredible will they seem to him. Here, more than anywhere else, it is necessary to have seen in order to believe. Nevertheless the accounts are true.

By catalepsy is understood a quite rare disease, closely allied to hysteria, paroxysmal in its manifestation, and characterized by a condition of muscular contraction and semi-rigidity, so that the limbs may be placed in awkward and constrained positions and remain so for some time. It is attended by loss of consciousness and cutaneous anæsthesia. Eulenberg says that "its pathognomonic symptom consists in this, that the muscles remain in a state of contraction into which they enter at the beginning of the attack, so that certain positions of equilibrium are maintained by the limbs without spontaneous change, while passive changes of posture, sometimes of very singular nature, can be easily made." The affection occurs on the one hand as one of the many manifestations of hysteria, or as a symptom of chronic cerebral disease, such as insanity, and seems to bear a close resemblance to trance or somnambulism.

The attacks of catalepsy occur suddenly as a rule, but at

times there are premonitory symptoms such as headache or vertigo. Sometimes the patients stop suddenly in the middle of a sentence or of a motion, as if enchanted, with open mouth or raised arm as the sudden stiffness seizes the muscle. In genuine catalepsy this peculiar condition of stiffness, or rather of extreme muscular tension, extends very rapidly over all the voluntary muscles, though not always over all in equal proportion. The affected muscles have a firm feeling, and offer more or less resistance to passive motion. This resistance gradually ceases, and the muscles, though still contracted and firm, yet yield to passive motion, so that the limb can be placed in any desired position in which it remains for some time without a change. This phenomenon can be seen much better in the upper than the lower extremities, and in the small than the large joints, for example in a hand or finger rather than the elbow or shoulder joint. Much that is reported in old authorities concerning the wonderful positions of those possessed may be referred to such cases. But the condition does not persist as long as some would suppose, in its full intensity; as a rule after some moments there is a diminution of the stiffness, so that the limbs obey the laws of gravity, and the arm raised horizontally sinks a little.

The consciousness is frequently entirely lost, but in some cases a clear knowledge is preserved of everything that transpires.

As a rule the general vital functions undergo no marked change during the attack. The respiration is of normal frequency, and the pulse usually shows no alteration in quality.

The following case is reported by Prof. Raue, of Philadelphia: Mrs. T., aged twenty-nine, married, of nervous, sanguine temperament, gave birth to her first child at "term," November 12th, 1870, whole labor accomplished in about six hours. Very soon after she was attacked with severe pain in the left side of the head, chiefly in the orbital region.

In about four hours she had her soiled clothing removed, her bed fixed, etc. This fatigued her much, and greatly increased the pain in the eye and head. In about five hours after this she became entirely blind, and ceased to be *conscious* of

pain. She says she does not know whether she slept or not, but she is certain she was not fully conscious. Twenty-two hours after labor she was suddenly seized with a convulsion. During the next four days she remained unconscious of surrounding events, according to her after recollection, although she would do many things, such as handle the baby and let it nurse, and even talked.

Consciousness returned suddenly like an awakening from sleep. While in this state of semi-consciousness she says it appeared as if there was a panorama constantly passing before her, so that she was excessively wearied by it. After waking, everything that was of a light color appeared to be covered with minute black spots about one quarter of an inch apart. This disordered visual condition lasted for three or four days and then gradually left her.

Immediately after her return to entire consciousness she became greatly depressed in spirits, unutterably sad, felt that she would die in despair, etc.,—the whole world was dark, had a feeling of weight at her heart, felt that she had disgraced herself by having a baby, etc.

The presence and conversation of her husband, the nurse, and others would lighten this feeling a little, but it would return with full force whenever she awoke from sleep. This mental condition did not improve for about six weeks. The bowels were not evacuated for about twelve days after parturition. When the baby was three weeks old the lochia ceased. About this time she began to sit up out of bed. Soon after this, while lying on the lounge one day, she was suddenly taken with a new sensation at or about the heart. She says it was indescribable, but fearfully intense. She called out for help, but did not move or lose consciousness; her face became of a leaden hue; the saliva thickened, and she had a peculiar sensation at the root of the tongue. The paroxysm lasted about two or three minutes, then gradually passed off with a sigh, leaving her exhausted and wearied.

This kind of paroxysm became of frequent occurrence, of greater intensity and longer duration. They came suddenly, under every circumstance of position, occupation or sur-

rounding. At table, when sitting at her work, when engaged in social enjoyable amusement, when walking the street, and when asleep. Sometimes there would be several a day. This condition lasted until her babe was three months old.

She says it required much mental effort to keep her from committing suicide, and that she has frequently bitten herself as a kind of relief from her feeling of desperation. She relates that on one occasion, one of these "spells" came over her as she was walking on the street; on seeing a man a feeling came over her (that she resisted with difficulty) to spring at him and tear him to pieces.

She felt that she was going insane; but after her child was three months old, the frequency of these recurrences was lessened, and they returned, with some degree of periodicity, about the middle of the month, lasting for a day, during which she would have several, to be followed by a sense of mental depression for about three days; occupying in all about the time of a menstrual epoch. This lasted about six months. Then without any change in the character of the "spells" they began to come irregularly, and she was led to believe that on the return of menstruation she would be free from this awful condition.

Her menses became regular and normal, but the only relief she experienced from her terrible affliction was a slight abatement in the severity of the paroxysm, which still came on at irregular intervals and of different degrees of intensity; but what they lost in intensity they made up in frequency.

At this time her babe is nineteen months old. The duration of a paroxysm, that is, "the spell" itself and its immediate effects, will pass over in about fifteen minutes, and she will be quite herself again. They still come on without regard to surrounding circumstances, when asleep or awake. Dr. Raue assumed charge of the case when the child was eighteen months old. Although under a constant dread of insanity, and consequently low-spirited, she never weeps. She says "the spells," when they come on, cause a kind of mental terror at the time; she wants some one near her, but not to touch her; says she knows everything that goes on about her,

but cannot move; and thinks she does not wink, but keeps her eyes open, and immovably fixed. The spell passes off with a sigh. She refers the sensation to the præcordia; says there is a weight of sadness there that is terrible; the feeling is not pain, but emotional; says she believes she has them without waking from sleep, for she feels as if she had a terrible dream, without any remembrance of a dream.

On inquiry as to her condition previous to parturition he learned that she had had considerable swelling of the limbs. This fact, together with the other fact that the restoration of the normal functions of the unimpregnated uterus had no perceptible influence upon "the spells," will enable us to form some idea as to the location of the seat of the difficulty.

Since the pathological researches of Marshall Hall and others into the causes of convulsions and kindred affections, we may regard it as one of the demonstrated facts that puerperal effects of this kind have either a *centric* or an eccentric origin. In nearly every case of puerperal nervous affection we are apt to jump to the conclusion that it depends upon reflex action, or is of eccentric action. But too much care cannot be used in making up the diagnosis in any given case. As in the case under consideration, our prognosis at the onset, based upon the diagnosis of a reflex cause, would be restoration as soon as the uterus resumed its normal unimpregnated condition and functions. The sequel disappoints us, our patient does not recover, our prognosis fails, and our patient is discouraged, and we are also.

In the above case, Dr. Raue prescribed Coccul. ind. for the following symptoms: "Anxiety;" "anguish about the heart;" "anguish of death;" "sudden violent anguish;" "frightful anguish, seeming like a dream, during sleep;" "stupid feeling of the head;" "thinking fatigues the head;" "headache, as if the eyes would be torn out." All these symptoms were present at the commencement of the illness, and the Coccul., in the thirtieth potency, cured the case in a few months.

The case just related had strong mental and puerperal complications; and I will now give one of a different kind, which I have translated from the French, and it is very remarkable; the writer says:

"On October 26, 1857, one of our most honored associates at Paris, Dr. L. Cerise, made a verbal communication to the Medico-Psychological Society, relative to a man affected with catalepsy in a very peculiar manner, whom he had seen a few weeks previous at Rome. I was at the time vividly impressed with the remarks of Dr. Cerise, although I was far from suspecting that circumstances would one day allow me to see the same patient, as afterward happened.

"April 15, 1859, I visited the asylum at Rome, and my first care was to ask Dr. Guarlandi, physician in chief of the establishment, to be kind enough to show me, if still alive, the cataleptic who had been spoken of at the meeting of the Medico-Psychological Society at Paris. A few moments later I was introduced into an infirmary, not over neat, where there was a single bed. I found myself in front of a man, apparently about forty years of age, bronzed complexion, and face much emaciated, lying upon his back perfectly motionless; constantly having his eyes three-quarters closed, and breathing without force and noise. His mouth remained half open and disclosed his teeth horribly filthy and covered with thick sordes, and, on carefully watching the patient, it was difficult to say whether he was awake, or plunged into a kind of half stupor. I continued my survey, and, uncovering the body, saw before me a veritable skeleton. The thinness of the poor man was so hideous that it far exceeded that we sometimes see in persons in the last stages of consumption or cancer. I placed my hand upon the epigastric and abdominal regions in order to see, if I could detect the presence of a tumor, but all seemed natural and in order. I then took in succession an arm and a leg; the two arms, or two legs, and communicated to those limbs various attitudes contrary to all the laws of gravitation. These positions remained until I changed them myself. Insensibility of the skin existed in a marked degree, but this symptom was not as well developed as with some lypemaniacs.

"I had proceeded thus far with my examination when I inquired for the notes concerning the case; they were only scribbled on a bit of paper, and merely said that the man had fol-

lowed the trade of saddler at Rome, that the commencement of his disease dated back five years, but he had been in the asylum only three years and a half; that on admission it was noticed that he was of a robust constitution, and a bilious lymphatic temperament; without being gross he was muscular, large and fleshy; at entrance he appeared sombre and taciturn; and rapidly arrived at a condition where he was almost a stranger to the things of the world.

"I inquired about the food furnished the patient, and was told that it was absolutely impossible to make him take his share of the common ration, and that he ate only bread, and very rarely a little beef-broth. The supervisor of the men's department then confirmed the statements made by Dr. Cerise to the Society, that the patient was entirely insensible to the words of the physician, students, chaplain and attendants, and that to the supervisor of the division alone had been given the power of making himself heard. He alone was obeyed, he alone could make him eat. In fact, I made many attempts, if not to make him talk, at least to draw from him a sound, but he remained impassible and mute. I procured some bread and presented it to him, and he preserved the same immobility.

"After many efforts and nearly exhausting my patience, being very desirous to see the man eat, I asked the attendant to be kind enough to make him talk in my presence. The attendant called him by name, and he answered by a monosyllabic and gutteral miauling (mialement). I had the attendant ask if he was ill, if he was in pain anywhere, if he desired anything, to see his family, etc., etc. To which he answered always in about the same words, that he had no pain, that he asked nothing and wished nothing. I then asked the attendant to give him something to eat. He at once presented to him a bit of brown bread weighing about five hundred grains. The patient extended his hand, took the bread, opened his mouth, bit energetically into the little loaf, chewed and swallowed it.

"But further while he was eating, if any one except the attendant addressed him, he would stop suddenly and leave

unfinished the acts of prehension, mastication and deglutition, until the friendly voice told him to continue and finish. Scarcely has he resumed his meal at the interrupted point than he again stops and remains motionless if a stranger addresses him. The experiment could be continued indefinitely.

"I wished to see him drink, but they objected, saying that the patient without having the least horror of drinking, had for a long time drunk almost nothing, and that it was with great difficulty he could be persuaded to drink a little white wine.

"The calls of nature were thus attended to. Once in every twenty-four hours he was placed upon a chair, and passed a very small quantity of urine. Every four, five or six days he had a passage from the bowels.

"I noticed with this patient a considerable lowness of temperature. All physiologists indeed have insisted upon this phenomena in cases of insufficient nutrition. They have even gone so far as to say that death does not result from hunger but from cold.

"Dr. Cerise had told us two years before that the patient, although suffering for a long time, had not grown perceptibly thinner; but my learned colleague will now learn from the details that I have given, that fearful inroads have since been made upon his general health. Moreover the prolonged life of this man in spite of the unfavorable conditions in which I found him was truly to me something inexplicable, and I think that others will share my surprise."

In that form of melancholia where great apathy and stupor are present, a condition will often be found strongly simulating catalepsy. An example of this sort coming under my own observation is given in the lecture upon melancholia.

During these attacks of catalepsy but little can be done in the way of treatment, and it is necessary to wait and watch.

Somnambulism.

I propose to briefly allude to that phenomenon which is known as somnambulism, or sleep-walking; it is not a disease in the strict sense of the word, and it is not spoken of as such

in any medical work with which I am acquainted, but you will occasionally be consulted by parents who will want to know what to do with their children who have this habit; and then it does indicate a nervous temperament which under favoring circumstances may pass into disease.

Somnambulism means more than merely that one walks in his sleep; the acts may be extensive, varied and elaborate. A man may rise from bed, and, while sound asleep, may walk down stairs, harness a horse, take a drive, put up his horse on his return, go back to bed, and in the morning have no recollection of any such actions. He may rise and build a fire and set the table for breakfast, and go back to bed, all the time being sound asleep. In fact any kind of automatic act may be accomplished while in this state, and some even that would seem to require thought, judgment, and volition.

The phenomena of somnambulism may become important to us in a medico-legal point of view, for questions may arise of how far a person is responsible for criminal acts committed in this state, or in that kindred transition state between sleeping and waking when everything is liable to seem distorted and unnatural.

Bernard S., a German, was lying quietly in bed with his wife; at midnight he waked with a start doubtless under the influence of some terrifying dream. He perceived standing in front of him a hideous phantom. Fear, and the darkness of the night prevented his seeing clearly, so in a trembling voice he called out twice: "who goes there," receiving no answer, and thinking that the figure was advancing toward him, he is seized with terror, seizes a hatchet which was always at his bedside and hurls it at the supposed spectre. All this was done so rapidly that not a moment was given for reflection. A deep groan and a fall recalled the man to his waking self, and he found that he had killed his wife. As he was subject to fits of somnambulism no punishment followed.

It is not unusual for children, after playing hard all day, or after a supper of some indigestible food, to get out of bed and walk in their sleep, especially if they are of nervous dipositions and temperament.

In this state of somnambulism the sense of touch plays a very important part, and is in a highly sensitive state. It is this sense which enables a man to walk with safety along the steep roof of a house, close by the brink of a precipice, and in so many dangerous places where the same person would at once grow dizzy and fall if in a waking state. He is entirely given up to the pictures of his imagination or rather of his memory, so that his actions are guided by this sense alone. This it is which enables him to accomplish other remarkable feats, such as to sit down and compose a letter or a poem, and write with accuracy and even elegance, also to play upon musical instruments and do many things which require a nicety of touch and a skill in manipulation; such things seem to prove the truth of the saying that the touch is the sum of all the senses put together; and it is owing to this inherent instinct which makes us strive to handle an object before our curiosity in regard to its quality is satisfied.

This condition of nervous excitability sometimes attains such a height that it goes beyond physiological limits, and its subjects are affected with hypochondriasis, ecstacy, hysteria and catalepsy.

As a rule, the somnambulist has no knowledge of what transpires in his sleeping state, but there are cases where it is otherwise.

Dr. Maudsley says, in his work on *Responsibility in Mental Disease*: "There is no doubt that some persons may rise from their beds while asleep, go through a series of complicated actions and retire to bed again without awaking; in the morning feeling weary, tired and out of sorts, but remembering nothing of what they have done, or remembering it only as a dream. If a crime were done by a person in this condition, there could be no question of responsibility. But it must be borne in mind that somnambulism might easily be pretended, and assuredly the assertion of its occurrence for the first time when a crime had been done would be extremely suspicious. It is really, if not itself a kind of nervous disorder, very closely allied to such nervous disorders as epilepsy, catalepsy and hysteria; it certainly indicates a decided neurosis; wherefore

if any one really was subject to it, there could hardly fail to be evidence of its previous occurrence, or of distinct nervous troubles."

The mesmeric sleep is only another form of somnambulism, but we have not the time to enter now into that subject, or its kindred topic hypnotism, nor, indeed, is an extended consideration of those nervous disorders called for from us.

LECTURE XVIII.

Moral Insanity and Medical Jurisprudence.

In this the concluding lecture of the course on Insanity, I propose to take up the subject of Moral Insanity, and also that of Medical Jurisprudence, both in relation to criminal acts and testamentary capacity.

It is not my purpose to enter upon the pathology of Moral Insanity, nor to make more than a brief examination of the peculiar features which characterize it; but I shall touch more fully upon those medico-legal questions which constantly arise from the diverse views of insanity, and specially of emotional insanity, held by the respective professions of law and medicine.

The plea of insanity is now so frequently urged as a defense in criminal trials, and in several noted cases has been so successfully used to defeat justice, that it becomes necessary for the protection of society to consider the proper means for checking so great and so growing an evil. At the same time medical science and medical men are unjustly reproached with inventing "new forms" of insanity; with shielding outbursts of passions and acts of crime under the garb of "impulsive insanity," and exhibitions of moral depravity as "moral" insanity, until all medical testimony has come to be looked upon with the greatest distrust. It must be admitted

that medical men have, occasionally, been too ready to express in the witness-box opinions as to the sanity or insanity of a prisoner based upon insufficient evidence; yet, we believe, the confusion and misunderstandings in these cases are mainly attributable to the unsettled condition of criminal law in its relations to insanity; the conflict between old judicial decisions taken as precedents, and modern psychological medicine, and the consequently different standpoints from which physicians and jurists view the matter. Looked at from the legal standpoint it is easy to comprehend why cases of alleged impulsive insanity are received with incredulity, while to the medical mind their existence is beyond doubt.

In this unsatisfactory condition I believe the law to be at the present time in reference to the question of responsibility when unsoundness of mind is urged as a defense or pleaded in bar of punishment. Those qualities of mind, the possession of which is held to constitute responsibility before the law, and therefore liability to punishment, are well known by almost every physician of experience to be possessed to a greater or less extent by the majority of those whose insanity is beyond question, and who ought not on any principle of justice to be held fully accountable for their actions, whatever the law may say to the contrary.

If this be true, it ceases to be a matter for surprise that conflicts of opinion arise between medical witnesses and the legal counsel in the courts; that such conflicts should be the rule rather than the exception, and that as a consequence a grave element of uncertainty should enter into the result of such inquiries, especially in capital cases. The fact is that the legal definitions of insanity in its relation to responsibility as set forth by the authority of the bench is at variance with the knowledge and experience of the age, at least of those persons whose opportunities and experience entitle their opinions to respect. In spite of this difference of opinion, judges continue with an almost wearisome iteration to repeat the opinions of their predecessors, and to charge juries as follows: "Notwithstanding a party accused did an act, which was in itself criminal, under the influence of insane delusions, with

a view of redressing or revenging some supposed grievance or injury, or of producing some public benefit, he is nevertheless punishable if he knew at the time that he was acting contrary to the law. That if the accused was conscious that the act was one which he ought not to do; and if the act at the same time was contrary to law he is punishable. To establish a defense on the ground of insanity, it must be clearly proved that, at the time of committing the act, the party accused was laboring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing; or so as not to know that what he was doing was wrong. That a party laboring under a partial delusion must be considered in the same situation, as to responsibility, as if the facts, in respect to which the delusion exists, were true."

Such is a brief exposition of responsibility in cases of insanity as laid down by the judges; and with a few exceptions every jury has been thus instructed since the year 1843.

The term "emotional insanity," as used by most later writers includes the two forms of "moral" and "impulsive" insanity; and it is commonly one of these forms that gives rise to the misunderstandings and disputes in criminal practice.

Dr. Pritchard, one of the earliest writers upon this subject, has defined moral insanity to be "a madness consisting in a morbid perversion of the natural feelings, affections, inclinations, temper, habits, moral dispositions, and natural impulses, without any remarkable disorder or defect of the intellect, or knowing and reasoning faculties, and particularly without any insane illusions or hallucinations." Dr. Carpenter the distinguished English physiologist puts it even more strongly, saying: "Moral insanity *may* and frequently *does* exist without any disorder of the intellectual powers or any delusion whatever."

Forbes Winslow says that "the patient manifests no mental delusion; is not monomaniacal; has no hallucinations; does not confound fancies with realities, but simply labors under a morbid state of the feelings and affections, in other words a diseased volition."

You will hear of Dr. Isaac Ray, if you ever go into a court

where the questions of insanity are under discussion; he says: "The contrast presented in moral mania between the state of the intellectual and that of the moral faculties is one of its most striking features. These patients can reason logically and acutely upon any subject within their knowledge; and extol the beauties of virtue; while their conduct is filled with acts of folly, and at war with every principle of moral propriety. Their moral nature seems to have undergone an entire revolution. The sentiments of truth, honor, honesty, benevolence, purity, have given place to mendacity, dishonesty, obscenity and selfishness, and all sense of shame and self control have disappeared, while the intellect has lost none of its usual power to argue, convince, please and charm."

Pinel, who was the first to call especial attention to this form of insanity, says that in common with Mr. Locke, the English philosopher, and other metaphysicians, he considered mania inseparable from delirium, and upon investigation he was surprised to find "many maniacs who at no period gave evidence of any lesion of the understanding, but who were under the dominion of instinctive and abstract fury, as if the affective faculties alone had sustained injury," and Esquirol, his successor at the Bicétre says that "there are insane in whom it is difficult to discover any trace of delusion, but there are none in whom the passions and moral affections are not disordered, perverted or destroyed."

We see from these quotations that the symptoms resemble very much, the acts and manifestations of what we are accustomed to call *vice;* and some persons indeed carry their theories so far as to consider all vice and sin as insanity; but although it may be difficult to distinguish in all cases between the two, still there is a difference. As has been truly said, "Much as the assumption of it is a disease has been reprobated, there can be no doubt that most of the eminent men who have studied insanity, and whose authority we habitually accept, are entirely agreed as to the existence of a form of mental disorder, in which, without any hallucination, illusion or delusion, the symptoms are exhibited in a perverted state of those mental faculties usually called the moral powers, or included

under feeling and volition. As, however, feeling is more fundamental than cognition, the intellectual activity cannot be entirely unaffected, though there may not be any positive delusion; the whole manner of thinking and reasoning is tainted by the morbid self-feeling through which it is secondarily affected. The patient may judge correctly of the relations of external objects and events, and may reason very acutely with regard to them, but no sooner is self deeply concerned, his real nature touched to the quick, then he displays in his reasoning the vicious influence of his morbid feelings, and an answering perversion of conduct, he cannot truly realize his relations, and his whole manner of thought, feeling and conduct, in regard to himself is more or less false."

It would follow from this that there are as many varieties of moral insanity as there are different manifestations of the mental emotions, but for all practical purposes they may be divided into two classes; one marked by depression and gloom, with the accompanying feelings of distrust, weariness of life, and the like; and the other shown by preternatural excitement, thoughtless and extravagant conduct, and a prevalence of malicious and angry feelings; while the characteristic feature is extreme irascibility depending on a physical morbid cause. The cases of moral insanity that are brought into consideration in the courts belong generally to the latter class, and it is this which will now claim our attention under the name *impulsive insanity.*

Impulsive insanity is said to exist "where the crime itself is held to be evidence of the insanity, and is accounted for upon the theory that the person is suddenly and insanely *impelled* to commit it."

In some cases the perverse impulse becomes so over-powering that during the paroxysm the moral sentiments are, for the time, completely paralyzed, and the person blinded as to the true character of his thoughts and actions. Esquirol says (*Traité des maladies mentales*, Vol. 2, p. 97): "Patients, delirious or not, urged on irresistibly to acts of which they disapprove, feel their condition and reason about it as clearly as would a sane person. Are they not then in a lucid interval, a

state of clearness of mind? But soon the paroxysm follows. Anew a prey to their delirium, they are impelled and yield, but reason no longer guides them. In obeying the perverse impulse pushing them, they forget the motives which but now restrained them, they see but the object of their passion, like the man in a fit of anger, who sees only the object of his rage."

Dr. Carpenter says: "It is unquestionable that many criminal actions are committed under the irresistible dominance of some insane impulse, the individual being at the time perfectly aware of the evil nature of those actions, and of his amenableness to punishment for them."

Speaking of the two forms together, he states: "There may, however, be no primary disorder of the intellectual faculties; and the insanity may essentially consist in a tendency to disordered emotional excitement, which affects the course of thought, and consequently of action without disturbing the reasoning processes in any other way than by supplying wrong materials to them."

Though some medical writers refuse to admit the correctness of the definitions given, and a few even deny the proper existence of these forms of insanity, the denial it seems to us is based rather upon technical than practical grounds. The objection they make is, that "the insanity is not confined *exclusively* to the emotional faculties, contending that the mind cannot be properly separated into such faculties, as of the intellect, the emotions and the will, but must be considered as a whole; and that no one part may be diseased with the other remaining in a perfectly healthy state."

While this may, strictly speaking, be true, yet the terms are useful as specifying forms of insanity that possess certain prominent and characteristic features; and in this sense they are permitted by all late writers, or as Prof. Maudsley says: "Whatever name it may ultimately be thought best to give it, there can be no doubt of the existence of such a form of disease." All admit that there are cases in which the intellectual faculties and the will are but slightly affected if at all, and where the moral perceptions are palpably disordered; and

again, those in which criminal impulses have suddenly and without any special premonitions occurred and been the occasion of homicide, suicide, etc., without any notable impairment of the intellectual faculties being apparent.

Prof. Maudsley says: "There is one occasional consequence of descent from an insane stock, viz., an entire absence of the moral sense. To those who take the metaphysical view of mind, it will no doubt seem improbable that absence of moral sense should ever be a congenital fault of moral organization; but it may be witnessed even in young children, who, long before they have known what vice meant, have evinced an entire absence of moral feeling, with the active display of all sorts of immoral tendencies, a genuine moral imbecility or insanity. As there are persons who cannot distinguish certain colors, having what is called color-blindness, so there are some who are congenitally deprived of moral sense. There are many persons who still think moral idiocy or imbecility to be a medical crotchet. A deficiency of moral sense, they would say, is a characteristic of the criminal nature, which must be met by a suitable punishment. But when we find young children, long before they can possibly know what vice or crime means, addicted to extreme vice, or committing great crimes with an instinctive facility, and as if from an inherent proneness to criminal actions; when we ascertain that they are the victims of an insane inheritance; and when experience punishment it has no reformatory effect upon them—that they cannot reform—it is made evident that moral imbecility is a fact, and that punishment is not the fittest treatment of it. Under the influence of the mental revolution which takes place at puberty, moral imbecility is apt to take the more active form of moral insanity, or of actual mania. Cases of this kind obviously bring us very near the class of criminals; in fact, when a person of the lower orders of society suffers in this way he generally does something which causes him to be sent to prison without question asked of the propriety of his fate."

In some cases of impulsive insanity, little or no mental derangement, apart from the morbid idea or impulse has been noticed, but in most cases it will be found on an intimate

knowledge of the patient's feelings and doings that there is more derangement than appears on the surface. His whole mental tone is more or less affected, so that his feelings are blunted or changed, the natural interests of life extinguished, and his judgments of his relations to others, and of their relations to him somewhat impaired; he is apt to become suspicious of and hostile to those who have been his nearest friends and acquaintances, and may finally get delusions concerning them.

Perhaps it has been in some degree owing to the way in which this deep perversion of feeling, this affective derangement, has been overlooked, or made of little account, attention having been attracted exclusively to the morbid idea or act, that there has been so great an aversion toward the doctrine of impulsive insanity. And yet its impulsive character is of the very essence of insanity, for in all forms of the disease paroxysms of impulsive violence are common features; without assignable motives, insane patients suddenly tear their clothes, break windows, smash crockery, attack other patients, and do great injury to themselves; they exhibit unaccountable impulses to walk, to run, to set fire to buildings, to steal, to utter blasphemous or obscene words; wherefore if there be one thing which a large experience of them teaches, it is how impossible it is to foretell the impulses which may suddenly arise in their minds, and to trust them from hour to hour. The paroxysmal impulse of homicidal insanity is not singular in its nature, it is singular only in being the prominent or apparently single symptom of the disease.

Pinel reports the case of a man named X. who at regular intervals was attacked by paroxysms of rage, beginning with heat in the abdomen and extending thence to the chest, neck and face. His countenance was reddened and he felt the arteries throbbing violently. At such times he would be seized with an irresistible impulse to kill, and he would slay the first person he met. *He enjoyed the full exercise of his reason even during the attack.* He would answer clearly and rationally all questions without any incoherence or delirium. He realized the full horror of his situation and reproached himself

bitterly for his wicked desires. When his paroxysms came on he would cry to his wife to fly and save herself. At the asylum he sought to kill his attendant whose kindness he acknowledged and praised. This inner contest at length led him to such despair that he attempted to commit suicide in order to end it.

Calmeil reports the following interesting case where there was no special delusion nor marked physical symptom.

"Glenadel, having lost his father during infancy, was brought up by his mother, and during childhood his conduct was exemplary. At the age of sixteen his character changed, and he became sombre and taciturn. His mother many times sought to find the cause of his sadness, but in vain. At length he told her that he must break his silence and said: 'You are the best of mothers and I love you with all my heart, nevertheless for some time a constant impulse has prompted me to kill you. In order to prevent such a dreadful event happening finally, allow me to enlist as a soldier.' He was persistent in his resolution, enlisted, and made a good soldier, but he had a constant inclination to desert that he might go home and kill his mother. His term having expired, his impulse was as strong as ever, and he re-enlisted. His impulse still persisted but would now be satisfied with the substitution of his sister-in-law, and this new passion was as strong as the other had been. At this time Glenadel made a confidant of one of his comrades newly arrived from his town. This comrade reassured him, telling him that the contemplated crime was impossible, for his sister-in-law was dead. Overwhelmed with joy, Glenadel obtained his discharge, and started for home delighted with thoughts of seeing his mother and friends once more. But on his arrival he found his sister-in-law alive, and, uttering a frightful cry, he found his impulse to kill as strong as ever. He confessed all to his brother, telling him that he was more dangerous than a wild beast. At his request his brother bound him with cords, sent for Dr. Calmeil and carried him to the asylum. The evening of his admission he wrote a note to the superintendent saying: 'I have entered your asylum and I will behave as well as in my regi-

ment, and I shall be considered cured of my dreadful thoughts. At times, indeed, I may pretend that it is so, but do not believe me. I ought not to be allowed to depart under any pretext whatever. When I beg to be set at liberty redouble your watchfulness. I should only use that freedom to commit a crime at which I shudder.'"

While then the experience of all recent *medical* writers, with the *prominent* exception of Prof. W. A. Hammond, is concurrent and conclusive that insanity very frequently exists without delusion, and that very frequently insane persons are able to discriminate between right and wrong, the *jurist* remains trammeled by decisions and precedents that can only recognize insanity when accompanied by delusion, or a deficiency in the ability to discriminate between right and wrong. Under these circumstances it need not cause surprise to find confusion and mal-administration of justice when medical expert testimony is brought into court.

To adduce arguments to an experienced alienist, at this day, to prove that a person may be insane and yet possess the power of discriminating between right and wrong, would be superfluous and a waste of time. In every asylum we may see patients who are given to tearing up their clothes, and who know as well as anyone, that what they do is wrong, and they delight in doing it *because it is wrong*. If the old legal test of right and wrong were strictly applied, probably half the inmates of our asylums would have to be released. And so with *impulsive insanity*, there are many persons who are perfectly conscious that their acts are wrong; indeed, who will admit that they are doing wrong, alleging that they "know it is wrong but yet cannot resist the impulse driving them to do it." Instances are not uncommon where persons have even voluntarily sought the refuge of asylums, asking to be confined and guarded to prevent their committing crimes, which they appreciate the wickedness of but feel an irresistible impulse to commit. I remember the case of an idiot named Jimmy who had paroxysms of being destructive and mischievous, and not infrequently when he felt the attacks coming on, he would ask to be kept restrained as he could not

help acting badly when the spell took him. Others have sought the shelter of an asylum to be restrained from committing crimes at which their moral nature shuddered. Many interesting and instructive cases of these forms of insanity are on record, and they prove, beyond the shadow of a doubt, that insanity does exist without delusion, and when the intellectual faculties, if not absolutely unimpaired, are yet in such a state of integrity that the patient is perfectly conscious of the unlawfulness of his acts, and of his responsibility for them to the law.

In neither form of emotional insanity will the test of the knowledge of right and wrong, avail. Under its application we must decide all these cases to be *not insane;* and we find the same unreliability in the test of *delusion.*

There are probably but few of us who have not at some time, in our own persons, experienced impulses to do things that are unexplainable even to ourselves, and that closely border upon insane impulse. Where there was no perceptible motive, nay, where every rational consideration impels to an opposite course of action, we sometimes feel a prompting to do something, not a crime, it may be, but simply a folly, that is only prevented by an active exercise of the reason and of the will. Now it is easy to suppose a condition in which the prompting is a little stronger; the corrective or restraining action of the will feebler, and we have a state in which crime might readily be committed, and yet it would be difficult to define it as a condition of insanity. It is of these cases that Dr. Carpenter speaks when he says: "It is unquestionable that many criminal actions are committed under the irresistible dominance of some insane impulse, the individual being at the time perfectly aware of the evil nature of those actions, and of his amenableness to punishment for them." The cases in which murderers have declared their crimes to have been committed in the manner here spoken of, and the strongly corroborative circumstances leave no room for a reasonable doubt upon this point. That such persons are *really insane seems clear; that they should on this account not be held amenable to a certain extent, is not at all so clear to our mind.*

The application of criminal law in cases of supposed, or alleged insanity was comparatively easy under the old ruling, that "insanity could only be admitted to exist when there was a complete inability to discriminate right and wrong." It is so palpably unjust to punish one for an action, who is incompetent to form or hold opinions of the right and lawfulness of his acts, that, to prove insanity with this definition attached, was to secure an acquittal. The case was similar with those forms of complete mania and melancholia, where the whole being was plainly under the control and influence of the disease, and when all the actions were prompted and guided by the false beliefs. It was from this and kindred reasons that it came to be a maxim in law "that an insane person cannot commit crime," and this fact came to be well understood by the insane themselves, *e. g.*, at the time of the burning of the English cathedral at York by an insane man, named Martin, the latter was shown to be insane; and one of the inmates of the asylum there said to another, "they cannot hang him for he is one of us!"

As our knowledge of insanity has become more settled and thorough, as we have come to a clearer appreciation of the so-called *partial* insanities, and as we are now compelled to admit that many persons *do* have a knowledge and discrimination of right and wrong: at the same time the law not making a proper advance from its old maxims and decisions, the application and enforcement of criminal law becomes involved in most serious embarrassments. On the one hand, it debars many, who are unquestionably insane, from the protection they ought to receive; while on the other, many persons are technically proven insane, and escape the punishment which ought justly to be awarded; the law being too limited in its scope in the one direction, too broad in its application upon the other.

The law as it now stands is very unsettled. In England it seems to declare: "If the accused person at the time of committing the offence knew right from wrong, *and that he was doing wrong*, he must be brought in guilty, whether insane or not." This is an advance over the older rulings, which re-

quired a *total and general* ignorance of the differences between right and wrong as essential to an acquittal on the grounds of insanity (or the existence of delusions to be proven), inasmuch as it requires that the person, at the time of committing the offence, must *know* he is doing wrong in *that particular act.* Yet this advance is far behind the requirements of right and justice; as it is now notorious that a great many insane persons know the wrongfulness of their actions, and yet ought not to be considered responsible, and so we find that "juries often, and judges occasionally, out of a natural humanity, repudiate this dogma," and the operation of the law becomes variable and uncertain.

In the "Great Berkhamstead Case," in England, D. E. was charged in March, 1877, before Sir W. P. Brett, for the murder of two of his children. The learned judge is reported to have charged the jury as follows: "Some explanation must be given of his not knowing it was a wrongful act. It was not sufficient that his mind was diseased, but to be so far diseased as not to know the nature of the act, or not to know that it was wrong. Now was the mind of the prisoner so diseased that he thought it was better that his children should die, but not so far diseased as not to know that in killing them he was committing an offence against the criminal law of the country. If the jury could conscientiously say that when the prisoner killed the children he did not know that at law it was a wicked thing to do, or that it was contrary to the criminal law of the country, they would acquit him on the ground that he had satisfactorily excused himself; but if, on the other hand, they found that he *did* know, however much they might think his mind diseased, it was their duty to show that he was guilty of murder."

At Croyden, in 1875, Lord Justice Brett at another trial thus spoke: "They must disabuse their minds of the medical notions as to insanity, for the reason that the medical men had not met the court upon the ground which they desired them to do, and that their opinions were founded upon their own ideas as to what the law of insanity ought to be. Even at the risk of seeming to sum up against the prisoner, he

must tell them that it was not enough for them to be satisfied that the prisoner was insane, but that he was so insane as not to know what he was doing; or if he did, that he did not know that he was doing a wrong thing, or that he did not know he was doing a thing contrary to law."

In 1874, a bill was introduced into the British House of Commons—a bill drafted by Sir James Stephens:

"Homicide is not criminal if the person by whom it is committed is at the time when he commits it prevented by any disease of the mind.

"(*a*)—From knowing the nature of the act done by him.

"(*b*)—From knowing that it is forbidden by law.

"(*c*)—From knowing that it is morally wrong.

"(*d*)—From controlling his own conduct.

"But homicide is criminal although the mind of the person committing it is affected by disease, if such disease does not in fact produce some one of the facts aforesaid in reference to the act by which death is caused, or if the inability to control his conduct is not produced exclusively by such disease. If a person is proved to have been laboring under any insane delusion at the time when he committed homicide it shall be presumed, unless the contrary appears, or is proved, that he did not possess the degree of knowledge or self-control hereinbefore specified."

In an article upon "Responsibility of the Insane" in the *American Journal of Insanity* of July, 1881, the editor, Dr. John P. Gray, says:

"Where the disease of insanity is established, we are ready to hear either of fixed delusions or general mania, with acts not directly traceable to definite delusions, of melancholia with homicidal or suicidal tendencies, with or without the knowledge of right and wrong, but always without the power of self-control or self-guidance, which is the most direct effect of the disease. It was substantially this definition which, as Chief Justice, Sir Alexander Cockburn wished to introduce into the Criminal Code drawn up by the Royal Commissioners in 1878, but without success; the Commissioners preferring to leave the law as it was, throwing upon the defense the burden

of proving that the criminal was laboring under such insane delusions or such mental disease as *destroys the capacity* to distinguish *between right and wrong*, and, moreover, that the delusions, if any, were such as pertained to or contributed to the perpetration of the crime. Judge Cockburn recognized the fact that an insane delusion may take away the power of self-control, even when the abstract sense of right and wrong is not lost, although he appears to qualify his position somewhat when it was proposed to make *all* delusion a presumption for the loss of self-control, by saying: 'the pathology of insanity shows that the mind may be subject to delusions which do not in any degree affect the moral sense or the will as regards the power of self-control. The mere existence of mental delusion ought not to affect the decision as to the power of self-control, unless the *nature of the delusion* be such as would legitimately lead to the inference that the power of self-control was wanting. The question is one which should be decided by *all the circumstances*, independently of any presumption one way or the other.' We suspect that the last sentence indicates about the only way in which the loss of self-control in any particular case can be established, but we are inclined to think that where the disease of insanity is proven *aliunde*, as by previous facts or history, it makes but little difference what may be the character of the delusions; that when a man has lost his reasoning power, his power of self-control and guidance can hardly remain totally unimpaired. It is for this reason that the insane man is the most uncertain of all creatures, and we never know in what direction his insanity may not show itself, or how far in its influence upon conduct, any particular delusion may extend."

In the United States, while the same uncertainty prevails to some extent, the older rulings and decisions, and the so-called *tests* of insanity are often repudiated as fallacious; and the rulings of our courts, more untrammelled by precedents and theories, and more open to common sense views, are more in agreement with the requirements of justice.

In the charge to the jury in the case of Kleim tried for homicide in New York, in 1845, Judge Edmonds said: "It

must be borne in mind that the moral as well as the intellectual faculties, may be so disordered by disease as to deprive the mind of its controlling power," and, since that time at least, the courts have at times, recognized both partial and general intellectual insanity, as well as partial and total moral insanity, as a ground both of exclusion of conviction for crime, and as incapacitating for the performance of civil contracts, especially for making a valid will.

In another quite noted trial, that of Cole for the shooting of Hiscock at Albany, Judge Hogeboom thus charged the jury.

"An insane impulse leaving the mind incapable of exertion, holding the individual incapable of exercising his mind, so far as I have defined it to you, exempts him from responsibility, and if, under the influence of such a want of mind, the prisoner commits the act, whether you call it an insane impulse or not, it exempts him from responsibility. Mere impulse, whether you call it irresistible or not, does not excuse if it be the impulse of excited passion arising from revenge, from resentment, from intention to do an act which is wrong, or a crime, and the prisoner is aware of it. Whether he is impelled to it by peculiarities of temperament, by a nervous disposition, by excited feelings, or anything of that sort, will not excuse him from responsibility. But how can we distinguish between this impulse and the insane impulse?"

In a late case the court instructed the jury that "they should return a verdict of not guilty, if the killing was the result of mental disease in the defendant; that neither delusions; nor knowledge of right and wrong; nor design or cunning in planning or executing the killing, and in escaping or avoiding detection; nor ability to recognize acquaintance, or to labor or transact business or manage affairs, is as a matter of law, a test of mental disease; but that all symptoms, and all tests of mental disease, are purely matters of fact to be determined by the jury." We find here, that the jury are instructed not to inquire whether the prisoner is *insane,* according to any theory or test of insanity, but to consider all the circumstances of the case, from a common sense standpoint, and to give a verdict accordingly. In commenting upon this

decision, Dr. Maudsley thinks in the future the question submitted to the jury will probably be, was the particular act the offspring or product of mental disease? He evidently holds to the view that it is impossible, and probably ever will be so, to give any "*test*" for insanity, as each case must be examined in the light of all its surroundings. If insanity is found to exist in the individual, and if the offense is the *result* of that insanity (or the product of mental disease), he must be held irresponsible.

At a Parliamentary Inquiry into the Lunacy Laws of England held in 1877, Dr. J. Crichton Browne, one of the Commissioners in Lunacy, in answer to the question "Are you of the opinion that they (lunatics) should be relieved from responsibility to the laws of the land?" answered, "Certainly not, except so far as any crime they may commit has been influenced by their insanity, or is the result of mental disease."

While such decisions and views are vast strides in advance, we cannot think they are fully up to the requirements of the present time. Lord Hale, when Lord High Chancellor of England, said: "We must be careful lest on the one side, there be a kind of inhumanity towards the defects of human nature; and on the other side too great an indulgence given to great crimes," and the latter seems now to be our greatest danger.

The legal authorities tell us that "setting aside cases of dementia, or loss of mind and intellect, the true test of insanity is *mental delusion*. If a person persistently believes supposed facts, which have no real existence except in his fevered imagination and against all evidence and probability, and conducts himself, however logically, upon the assumption of their existence, he is, so far as they are concerned, under a *morbid delusion*, and delusion in that sense is insanity," (*Abbott's New York Digest*, Vol. 7, 1865.)

"The degree of unsoundness or imbecility of mind, sufficient to invalidate the acts of the party in some cases, may not suffice in others. But in regard to insanity, where there is no frenzy or raving madness, the legal and true character of the disease is delusion,—or as the physicians express it, illusion or

hallucination,—and the insane *delusion* consists in a belief in facts which no rational person would believe." (*Greenleaf's Law of Evidence*, Vol. 1, p. 464.)

It has been shown clearly that many cases of insanity can and do exist without any delusion whatever, and this has been shown and acknowledged by both medical and legal authorities. It follows then that it is impossible to define insanity by any one or two test symptoms. Each case should be examined by the jury *in itself*, and they must be left to judge of the value of *all* facts in connection with it. This seems to be the tendency of our latest American rulings, and it is the more humane, just and proper course,—and a great advance over the older methods;—better calculated to do justice to the prisoner, if not to protect the community. Still we cannot refrain from hazarding the opinion, that the ends of justice would be better served, the security of society rendered more certain, and the rights of individuals more secure, if the laws, both statute and those ordained by custom and sanctioned by previous rulings of the courts, exempting insane offenders from punishment, were all repealed, leaving the jury to determine the guilt or the innocence of the accused, not on the grounds of insanity alone, but from *all the facts;* considering in each case when insanity is alleged, its value if proven, as an element in forming an opinion as to the degree and extent of punishment to be awarded; and I would have the court call in the advice of expert testimony to give their help in learning the true condition of the accused, and the extent to which the insanity has influenced the actions, instead of as now, having medical experts retained, as are counsel, to aid one side or another, than which nothing tends more to bring medical expert testimony into discredit and disrepute.

No doubt it will seem cruel to many, to advocate the doctrine that insane persons should *ever* be made to suffer punishment for crime. But all modern criminal law is based solely upon the principle of protection to society. It recognizes in its administration nothing of the spirit of vengeance or retaliation upon the criminal. It imprisons or it kills, not because the culprit deserves imprisonment or death. Its penal-

ties are never imposed with a view to cause suffering simply because it is thought *merited*, and as an atonement for the crime; if this *were* the case, the punishment would always be severe as the crime were atrocious. But always, its only and sole object is to protect the community, either by depriving the criminal of further opportunity to commit crime; or through the example it offers, to deter others from the perpetration of similar misdeeds. Laws are passed to protect each individual in the enjoyment of life, property and his other rights and privileges; and with punitive provisions, that warn others not to interfere with those rights; and, when crime is committed, that is, when the rights of another are invaded, punishment is enforced to impress the fact, that transgression is not only forbidden, but will be inevitably followed by unpleasant consequences to the transgressor. There is no natural, inherent right in any government or power to deprive any man of liberty or life. The power is assumed by common consent, for the common safety, and is only justified by the law of self-protection; and it becomes brutality and tyranny when used beyond these strict requirements. But the great natural law and right of self-protection is supreme! It has no limits in its proper application. If any member of the community is, either through his own voluntary act, or some combination of unfortunate circumstances, detrimental to the community; the community must protect itself from him. If it be through his own voluntary act, as a wilful murder, then a punishment is inflicted to prevent a repetition of the act by the same person, or by others. If it be through no *fault* of his but a *misfortune*, as when a homicide is committed in an attack of mania, then the community protects itself by putting the offender in confinement; but no punishment, as such, is inflicted, because it could have no good effect, as other maniacs would not be thereby deterred from homicide, having no proper conception of the relation of the punishment to the crime.

But is it always true that punishment, or the prospect of punishment would have no good effect as applied to insane persons? Is it not a notorious fact that constantly, both in

and out of asylums, insane patients are governed by fear, and restrained through dread of punishment, though in hospitals it goes by the name of restraint and seclusion and discipline?

Having seen that it is not at all uncommon for cases of emotional insanity, men clearly and undoubtedly insane, to be possessed of the ability to discriminate between right and wrong, and to have sufficiently clear perceptions of the nature of crime and its penalties, could not some provision be made for controlling them through fear of punishment, while at the same time recognizing their insanity? Both as a matter of protection to the community and of benefit to themselves, would it not be wise to apply to many of these cases of moral and impulsive insanity, the same restraining influence we find useful for *sane* criminally disposed persons?

As an epidemic inclination for suicide among young women was checked by a law ordering that the bodies of those so destroying themselves should be exposed naked to the public view; so in turn it seems as if murder manias might be greatly controlled by judicious laws.

An extremely good example of the preventive influence of a judiciously devised punishment, was afforded by the stop which was put to the repeated alarms to which Queen Victoria was subjected, after the real attempt made upon her life by Edward Oxford. The motive in his case seemed to be nothing else than morbid vanity, which was gratified by his being tried for high treason and made an object of public notoriety.

Being found "not guilty on the ground of insanity," to which he was proved to have an hereditary predisposition, and being placed in Bethlehem Hospital as a lunatic, no corrective impression as to *punishment* was made upon the class from which he sprung, and the like morbid love of notoriety led one young fellow after another to threaten the Queen, by presenting pistols and other weapons, sometimes unloaded, when she appeared in public. In order to protect her from the constant repetition of these outrages, a bill was hurried through Parliament in the shortest possible time, making the offence of presenting any firearms at the Queen (even if unloaded) a disgraceful one, to be punished with *whipping*, and no more was heard of such attempts.

If then there are cases in which the fear of punishment acts upon the minds of insane persons, with a wholesome and restraining influence, it seems as though it were right and proper that the community should receive the protection which can be given it by the enforcement of the laws in such cases, as well as in those where insanity does not exist. If it be made absolutely certain that punishment will follow swiftly upon the steps of those who do injury to the persons or the property of others, many, having the "insane temperament," or laboring under "partial" insanity, will be controlled, and have their powers of resisting insane promptings strengthened, who might, with a less certain prospect of punishment before them, give way to their evil impulses.

It is not meant that no distinction should be made between sane and insane criminals; or that each should be punished with like severity. Of course there are many cases in which it would be most cruel and unjust, and would serve no good purpose, to inflict any punishment other than that implied in confinement in an asylum. But any attempted definite legislation to afford protection to this class must fail; just as all attempts to cover such cases by definite judicial rulings have failed, because it must always be impossible to give a strict and accurate definition that shall embrace this class only. The only way to practically solve the difficulty is to render *all criminals*, whether insane or not, equally *liable* under the law; leaving the court and jury free to determine the kind and degree of punishment for each individual case; taking into consideration all the features of the case; investigating the facts of the insanity as part of the facts of the case, and as palliative circumstances only, and guiding to determine the nature and extent of punishment, whether in an asylum or elsewhere.

We will occupy the remaining portion of this lecture in considering the testamentary capacity of the insane. First as to imbeciles, for idiots of course cannot make a will. Imbeciles of the lowest grade are evidently incapable of making a will, but those who are called feeble in intellect may be capable even when under guardianship. For it is evident that

the nature and consequences of a will may be sufficiently understood by many an imbecile who is utterly incapable of discerning the complicated relations that are involved in the management of property. For this reason it is said "that if a man be of a mean understanding, neither of the wise sort nor of the foolish, but indifferent as it were, betwixt a wise man and a fool; yea, though he rather incline to the foolish sort, so that he might worthily be called a dull pate, or a dunce, such a one is not prohibited to make a will." Nothing can be more natural than that he should be attached to those who have rendered him important services, and perhaps have well-founded claims on his bounty; and if anxious to leave some substantial token of his regard, no legal impediment ought to prevent him from bequeathing them a reasonable portion of his property. The danger anticipated from such an exercise of the testamentary capacity is more imaginary than real; for it can hardly be conceived that testamentary dispositions, which turn the descent of property altogether from its natural channels, to heap it upon a stranger or a favorite, would not be attended by appearances of circumvention or fraud that would inevitably destroy their validity. All that is required to establish the wills of people of weak understandings is that they should have been capable of comprehending their nature and effect. But of course the slightest appearance of interference, or improper influence, should be closely scrutinized, and as much less evidence required to substantiate its existence, as the party is more likely to have been affected by it.

We now consider cases of partial mania, or melancholia, such as are usually regarded as monomanias, and the principles that guide us here are few and simple. "When a man suffers under a partial derangement of intellect, and on one point only, it would be unjust to invalidate acts which were totally distinct from, and seem uninfluenced by, this so limited insanity; but if the act done bears a strict and evident reference to the existing mental delusion, we cannot see why the law should not also interpose a limited protection, and still less why courts of equity and probate, which in their ordinary

jurisdiction relieve against mistake, should deny their aid in such cases. If we have a case where a man conceives an antipathy against his relatives, thinking that they seek his life; and if under the influence of these delusions he makes a will, leaving his property to others, the will is null and void. On the other hand, testamentary dispositions which are founded on motives that might be supposed to govern a sane mind, and present on their face no indication of insanity, have not been disturbed, though the mind were confessedly laboring under some degree of derangement."

The Surrogate of Orange County, New York, in the matter of the last will of J. C. Calhoun, 1870, said: "Monomaniacs are those persons who are insane upon some one or more subjects, whether it relate to one or more persons or things, and are apparently sane upon all others. Such persons are competent to make a will, unless the subject of their infirmity is involved in the making of it. The belief in the existence of mere illusions or hallucinations, creations purely of the imagination, such as no sane man would believe in, is unequivocal evidence of insanity. The persistent belief of a person in supposed facts which have really no existence, except in his imagination, and who act on such belief, proves him, so far as such acts are concerned, to be acting under a morbid delusion. Such a delusion is partial insanity. When it appears that the will is the direct offspring of such partial insanity, it must be regarded as invalid, though the general capacity of the testator is unimpeached,"

The following opinion was given by Judge Denio, of the New York Court of Appeals, December, 1865.

"1. The true test of insanity affecting testamentary capacity, etc., aside from cases of dementia or loss of mind and intellect, is mental delusion.

"2. A person persistently believing supposed facts, which have no real existence, against all evidence and probability; and conducting himself upon the assumption of their existence, is, so far as such facts are concerned, under an insane delusion.

"3. If a testator at the time of making his will is laboring

under any such delusion in respect to those who would naturally have been the objects of his testamentary bounty, and the court can see that the dispository provisions were or might have been caused by such delusions, such instrument is not to be deemed his will."

Judge Gridley, of the Supreme Court of New York, said: "A *monomaniac*, on more than one subject, may make a valid will, when the provisions of the will are entirely unconnected with, and of course uninfluenced by, that particular *delusion*. But where there is good reason to believe the will is the offspring of that particular delusion which has seized his mind and controls its operation the will is otherwise. A will thus made, under the influence of a powerful *delusion*, which has not only impaired but perverted his judgment and understanding in relation to subjects connected with the provisions of the will, so as to exercise a controlling influence in the disposition of his property, is not the will of a testator of sound mind. His mind is unsound *quoad*, the very subject on which it is called to exercise its powers in making the will."

In England, Sir John Nichol said: "Where there is no direct evidence of the deceased's state of mind at the time of the act done, recourse must be had to the usual mode of ascertaining it in such cases, which is looking at the act itself. The agent is to be inferred rational or the contrary, in such cases, from the character broadly taken of his act. Testamentary dispositions that conflict with the natural distributions of property, and the known and expressed intentions of the testator, are to be held as sufficient evidence of unsound mind. (*Addams' Ecclesiastical Reports.*)

In the case of Dew v. Clark (*Addams' Reports*), the existence of monomania is recognized on the ground of delusion, and its operation on the understanding in controlling the civil acts of an individual. The testator Scott had conceived a violent antipathy against his daughter without any cause, which was declared to be solely the offspring of delusion, and his will, which cut her off from all participation in his estate, was set aside on that ground alone.

It must now be regarded as the settled doctrine of English

and American courts, that *partial* insanity may or may not affect the validity of a will. But it is not so well settled that a will is *necessarily invalidated* by the presence of mental disease possessing a wider range of influence.

In quite a celebrated case, Lord Brougham, Chancellor of England, said that "there was a manifest disposition to lay down a rule, that no person laboring under monomania, or partial insanity can be deemed intestable, unless the kind of insanity appears on the face of the will. But there was wanting the courage to lay down a proposition which would at once have been rejected, and must have been met with the question: Could any court admit to probate the will of the man who said "I am the Christ," although that will bore no marks whatever of an unsound mind, still less of the dreadful delusion under which the party labored." Undoubtedly, many a man whose mind is swarming with delusions, and whose insanity is manifested, in some way or other, every hour of the day, may make a will perfectly correct and proper in its dispositions, and exhibiting no trace of disease, either in its form or substance. Is such a will to stand? Practically there would be no difficulty. If the testator had shown, in his discourse or his conduct, the least flash of reason, his case would be regarded as one of monomania, and subject to its rules.

A judge or medical expert is seldom required to decide questions of more delicacy than those of mental capacity in old age, when the mind is confessedly laboring under some kind or degree of impairment. The standard by which some witnesses' minds are formed in such cases is so different, and the pertinacity with which each one clings to his own conclusions—in proportion generally to his ignorance of the subject—is so strong, that nothing but a clear intellect and a good judgment will enable one to perform his duty with credit. Though some of the perceptive powers may preserve their wonted activity through the whole of the disease, yet it is in these that the disorder is first manifested, and that long before the higher powers of the understanding have materially suffered. The memory of persons, things, and dates, and especially of recent impressions is exceedingly treacherous;

and so striking is this impairment to those unaccustomed to look beneath the surface of appearances, that when they find they are not recognized, though once well enough known; that past events and actors engaged in them are either forgotten, or entangled and confused, and that a certain listlessness and absence of mind takes the place of former animation and attentiveness, they summarily conclude, but often mistakenly, that for all business purposes, the patient is utterly unfit. But we must remember that "he may not have sufficient strength of memory and vigor of intellect to make and to digest all the parts of a contract, and yet be competent to direct the distribution of his property by will"; and again, "a man may be capable of making a will, and yet incapable of making a contract, or to manage his estate."

We are to bear in mind, however, that testamentary dispositions generally imply an exercise of memory. The mind must be able to bring up before it scenes and persons connected with the past as well as the present; for without such ability persons may be overlooked who would otherwise have held a prominent place in the will, and transactions forgotten which might naturally be supposed to have an effect upon its dispositions. A will which makes no mention of relatives who had a natural claim on the bounty of the testator, and in regard to whom he apparently entertained only the kindliest feelings, creates a suspicion that his memory is at fault, and unless the fact is satisfactorily explained raises a strong presumption against the validity of the will. Many old men who have begun to lose their faculties have a passion for making wills, and so far as the form is concerned, they are able to do it correctly, but they are often governed by the whim of the moment rather than any definite views of the claims which others may have upon them, and not having them brought to their notice by any one else, they are liable to overlook them unintentionally."

Testamentary dispositions made during the lucid intervals of mania or febrile delirium are often contested on the ground of incapacity, especially when there is any suspicion, real or pretended, of improper influence on the testator's mind. The

law requires that in such instances the occurrence of lucid intervals should be proved beyond a reasonable doubt, but as delirium is merely an adventitious symptom, and, not like mania, the habitual state of the patient, it will be satisfied with much less proof in the former than in the latter affection.

In these cases it is the practice of the English ecclesiastical courts, not to confine their attention exclusively to the evidence directly relating to the mental condition of the testator, but to consider all the circumstances connected with the testamentary act; for the object is not so much to settle the question of soundness or unsoundness in general, as in reference to that particular act. This principle is, that a person may be capable of testamentary acts while technically and really unsound; and incapable of doing other acts requiring deliberation or reflection. This principle is particularly applicable in cases of delirium where the transitions from a state of senseless raving to that in which the mind is calm, perfectly rational and conscious of its condition are very rapid, and where in the lucid interval, the mind, though weak, is clear and unclouded by any of those peculiar views and notions which often characterize the lucid interval in mania. Accordingly, the testamentary capacity is to be determined, in a great measure by the nature of the act itself. If it be agreeable to instructions or declarations previously expressed when unquestionable sound in mind; if it agrees with the general tenor of his affections; if it be consistent and coherent one part with another; and if it have been obtained by the exercise of no improper influence, the will will stand, otherwise not.

LECTURE XIX.

Non-Restraint in the Treatment of the Insane.

Non-restraint: "La plus haute expression de ce qu'il est possible de réaliser dans l' intérêt de l'amelioration intellectuelle, physique, et morale des aliénés confiés à nos soins." (*Morel. Le Non-Restraint*, p. 37.)

One of the most important of the "vexed questions" concerning the treatment of the insane at the present time is that of the use or non-use of mechanical restraint, and, in entering upon the consideration of this subject, it may be well to review briefly some of the leading features in the condition of the insane at the close of the eighteenth century, and the change that took place at that time.

Previous to the year 1792, the treatment of the insane was barbarous and cruel; asylums were managed like prisons, and were full of ingenious devices for torturing and punishing the unhappy lunatics who were confined and chained within their walls; stripes were inflicted daily as proper remedial treatment, and the patients were regarded and treated as wild beasts rather than as human beings. At that time two illustrious men, Hahnemann and Pinel, showed that the insane can be ruled by kindness more easily than by severity. The part taken by Hahnemann is not generally known, even among his followers, as it was the work of but a short period of his life, and was overshadowed by the brilliant results of his investigations in the field of Materia Medica.

In the year 1792 he was appointed to the charge of an asylum in Georgenthal, and in 1796 he published an account of his cure of the Hanoverian minister, Klockenbring. In this report he advocates gentle treatment of the insane in these words: "I never allow any insane person to be punished by blows or other painful corporeal inflictions, since there can be no punishment where there is no sense of responsibility; and since such patients cannot be improved, but

must be rendered worse, by such treatment." Dr. Dudgeon says: "May we not, then, justly claim for Hahnemann the honor of being the first who advocated and practiced the moral treatment of insane? At all events, he may divide the honor with Pinel, for we find that towards the end of the same year, 1792, Pinel made his first experiment of unchaining the maniacs in the Bicêtre." (*Dudgeon's Lectures on Homœopathy*, London, 1845, p. 23.)

The above date has been generally accepted as the one in which Pinel's experiment was made, but it appears from a sketch of his life, written by his nephew, that "his appointment to the Bicêtre hospital was in the latter end of 1793, and not in 1792." Thus his work among the insane began fully a year later than that of Hahnemann.

When Pinel entered upon his duties at the Bicêtre he was deeply impressed by the fearful condition of the inmates, and at last, after much urging, prevailed upon the authorities to allow the removal of the chains and shackles. The story of this great deed has been told too many times and is too well known to need relating here; suffice it to say that the experiment was successful, and order and kindness succeeded to tumult and harshness.

At the time Pinel was laboring in France, Dr. William Tuke was establishing the Friends' Retreat at York, England. He endeavored to treat the inmates with all kindness and gentleness, in order that the institution might indeed be a "place in which the unhappy might find a refuge; a quiet haven in which the shattered bark might obtain the means of reparation and of safety." In this asylum, although restraint was not entirely abolished, the system of treatment by kindness was inaugurated in England, and the restraints used were of a mild type.

Little reform was made in other hospitals, except the one at Lincoln. Here in 1829, Dr. Charlesworth, becoming convinced that the use of mechanical restraint was in many cases injurious, laid his views before the Board of Visitors; who ordered, February 16th, "that the Director do keep a journal, in which he shall make daily entry of every Restraint and

Severity used in this Institution, specifying the name of the patient, the nature of the restraint or severity applied, and the hours at which the same commenced and ended, and that the said journal be laid before each Weekly Board, and signed by the Chairman."* A similar rule is now in force in every asylum in Great Britain. Improvement even in the Lincoln Asylum was slow, and attended with great difficulties, until, in 1835, Mr. Gardner Hill was appointed house surgeon in connection with Dr. Charlesworth, and in a few years their united efforts resulted in the entire abandonment of the use of restraint. Mr. Hill entered upon his duties with the resolution of carrying into effect his principle, that "in a properly constructed building, with a sufficient number of suitable attendants, restraint is never necessary, never justifiable, and always injurious in all cases of lunacy whatever."†

In spite of the reform so successfully carried out at Lincoln, most of the hospitals continued the use of chains, hand-cuffs, and restraint chairs. In 1839, Dr. John Conolly succeeded Sir Charles W. Ellis as Resident Physician to the great Hanwell Asylum, containing about a thousand patients. Previous to assuming the direction at Hanwell, he visited Lincoln and other asylums; at all, except Lincoln, were found strait-waistcoats, hand-cuffs, leg-locks, and various coarse devices of iron and leather, including gags and horrible screws to force upon the mouths of unhappy patients who were unwilling or even unable to take food.‡ At Hanwell the instruments of restraint of various kinds amounted to some six hundred.

Dr. Conolly was well versed in the views of Pinel, Tuke, Charlesworth and Gardner Hill, and was fully convinced that the application of restraint increased the very evil that it was intended to relieve; and in his first report says: "The example of the Lincoln Asylum, in which no patient has been put in restraint for nearly three years, came also powerfully in aid of

* "Total Abolition of Personal Restraint in the Treatment of the Insane." A Lecture by R. Gardner Hill, London, 1839, p. 71.

† Hill on Lunatic Asylums, p. 21.

‡ A Memoir of John Conolly, M.D. By Sir James Clark, M.D., London, 1869, p. 38.

an attempt to govern the asylum at Hanwell by mental restraint rather than by physical." In 1849 he published his eleventh and final report, giving a summary of his work at Hanwell during the ten years of his life there. He says: "I will only further simply state, that now for ten entire years, no hand or foot has been fastened in this large asylum by day or night, for the control of the violent or the despairing; that no instrument of mechanical restraint has been employed or even admitted into the wards for any reason whatever; that no patient has been fastened in a coercion-chair by day, or fastened to a bedstead at night, and that every patient, however excited or unmanageable, arriving at the asylum in restraint, has been immediately set free, and remained so from that time."

Urged by the results attained by Dr. Conolly, the treatment of the insane without restraint, and with but a limited amount of seclusion, has since been the rule throughout Great Britain; but Dr. Norton Manning says in his report on lunacy that, "during the last few years there has been a certain reaction in the feelings of superintendents on the subject. In quite half of the asylums visited, although restraint was not practiced, its advantage in certain cases was distinctly admitted, and it does not now meet with the all but wholesale condemnation which was accorded to it a few years ago."*

In the United States, restraint is used in almost every hospital. The forms generally used are the camisole, wristers, muff, bed and chair straps, the crib-bed, and seclusion; the amount of restraint varies according to the discretion of the superintendent and officers; but in no hospital does it compare with the amount used in England some forty years ago, and as a whole the patients are treated with a great degree of kindness and humanity.

It may seem presumptuous to criticize the treatment advised by those who have made the care of the insane the work of a life time; but while I am willing to acknowledge that there are times when the use of restraint may be necessary, and of

* Report on Lunatic Asylums. By Fred. Norton Manning, M.D., Sydney N. S. W., 1865. By Authority, p. 116.

benefit to the patient, I also contend that the use of restraint, as it now prevails in our hospitals, is excessive and injurious to the patient. I know, too, that patients have spent the largest portion of their asylum life, *secluded* (i. é. locked in), in their own room; one patient of whom I had knowledge, during a residence of over two years, only left his room when it was desired to clear out the rubbish which had accumulated there. It is by no means rare for a violent, or so-called dangerous, or noisy patient to spend weeks restrained by the camisole, muff or wristers by day, and a suitably prepared room at night. If an attendant desire to leave his gallery for a time, insufficiently guarded, he simply makes matters safe and quiet by applying restraint or seclusion to any noisy or excitable patient. Similar examples might be given to almost any extent, but it seems as though they should not occur, and that the constant aim should be to avoid restraint as much as possible.

It is a rule in every asylum that restraint or seclusion shall never be applied except by order of one of the medical officers, and if through some emergency the rule should be neglected, the fact is to be immediately reported. Practically, in many hospitals, this rule is a dead letter, and the application of restraint is left too much to the wishes and discretion of the subordinate officers and attendants. As a necessary consequence the object kept in view at all times and under all circumstances, is not the greatest amount of comfort to the patient, and his recovery, but the quiet and orderly government of the hospital, and, in a less degree, the convenience of the employes. This is not due to any intention on the part of the officers of the hospital, but is one of the fruits of the present system of asylum management.

It is not my purpose to discuss the question of whether, as is supposed by many, abuses occur in hospitals, but only to speak of such treatment as receives the indorsement of superintendents as being right and proper. Among the methods of restraint or discipline in use in some hospitals there is one called "*bathing*," a process thus described by one who was subjected to it: "The patient's hands and feet are tied, and sometimes a gag is inserted in the mouth. He is then placed on

the bottom of a bath-tub upon his back, his face directly under the faucet, through which the water is let into the tub. The faucet is then opened, and the water rushing through falls directly on and into the patient's face, filling his nostrils and mouth, producing all the sensation of suffocation by drowning." This evidence was given before a legislative committee of investigation, and the attendant who inflicted this *bathing*, testified that he did so by order of the superintendent, in order to induce the patient to confess committing some slight misdemeanor of which his innocence was afterwards proved. "*Ducking*" is another recognized use of the bath in many asylums in cases of patients, male or female, of filthy habits.

Among the late writers on insanity no one is more justly eminent than Dr. Henry Maudsley, who gives his views as follows: "There can be no greater fallacy than that of supposing what is called a moderate use of mechanical restraint, to be consistent with a general plan of treatment in other respects humane and beneficial. It must be dispensed with altogether, or deterioration will ensue in the patient, and all kinds of neglect and tyranny will be engendered by degrees, until restraints become the usual substitutes for forbearance and watchful attention. It is necessary that the abolition of restraint should be absolute to be efficient; the principle of the non-restraint system will admit of no compromise. I do not hesitate to express a strong personal conviction that the use of mechanical restraints in any asylum, public or private, is an indication of a badly managed institution, and that its use in the treatment of private cases is unnecessary and prejudicial."

The advocates of restraint in its milder forms claim that in abandoning its use there would be a great increase of seclusion, which would prove fully as objectionable; but Dr. Manning says in his Report, p. 121: "In all the arguments used for restraint by American physicians, the evils of seclusion are pointed out; but there is, as a rule, more seclusion notwithstanding the restraint in American than in English asylums."

When the true advocate of non-restraint uses seclusion, he

practices it as did Dr. Conolly, at Hanwell, with whom it was simply the removal from a gallery to a quiet room; from noise and excitement to tranquility. In extreme cases the room was padded and partially darkened. All cases of seclusion, if of only half an hour's duration, were reported to the medical officer and a record kept.

If our superintendents were required to keep for inspection by proper officers an accurate record of every instance of restraint, seclusion or use of the bath, is it probable that they would consider it necessary to use them as often as is now the case?

Dr. Conolly says in his Eleventh Report: "The temporary seclusion of patients—that salutary exclusion of causes of excitement from an already irritated brain—is found to be but seldom necessary except for a few hours, and as an actual remedy which the soundest principles of medicine would recognize in every disease of excitement."*

In Scotland, in 1855, an objectionable amount of seclusion had followed the abolition of restraint. Patients were locked up in darkened rooms for days, weeks and even months. Now, however, such a state of affairs is never seen; and in some asylums seclusion is virtually abolished except for medical reasons."†

Dr. John P. Gray says: "Do what we may, there will always be dangerous lunatics, there will be those who want to kill themselves, mutilate themselves, who will tear off their clothing, indulge in fecal self-defilement, and strike their associates or keepers. If kind words sufficed to calm them, do you suppose recourse would be had to restraint? Kind words, however, only produce this effect in the books; and even in that corner of Paradise Lost called Gheel, when a patient becomes disturbed he is restrained—he is chained."

The advantages claimed for a proper use of mechanical restraint, are thus set forth by the distinguished alienist, M.

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* Memoir of Dr. Conolly, p. 34.

† Letter from Sir James Coxe, Commissioner in Lunacy for Scotland, to Sir James Clark, quoted in Memoir.

Christian, in a paper read before the Medico-Psychological Society of Paris,* October 25, 1880.

"Suppose, for instance, that in a medical or surgical service a patient—and the case is one of frequent occurrence—who is the victim of fever and delirium, should get out of bed in the night, disturb his associates and put the whole ward in disorder, do you believe that one would hesitate to fix him in bed, or, if necessary, apply a camisole? Indeed, families themselves, be their social status what it may, have no such scruples. When one of their members, under the visitation of disease, becomes boisterous, violent, and dangerous, he is rendered incapable of self-injury by restraint,—and with what gentleness this is applied, you may gather from the condition of the unfortunates who are brought to us covered with contusions and abrasions, and having on their ankles and wrists the visible traces of the cords with which they have been bound. Observe that in all these cases it is the safety of the *entourage*, the interest of the patient himself which demands the restraint. The mad man must be prevented from injuring himself and others, and here we have a motive before which every other consideration must yield."

Then alluding to the claim made by English superintendents that no restraint whatever was needed, he says: "From the day on which Conolly applies his reform, all excitement disappears in his asylum; patients the least amenable to discipline, obey the gentle and firm voice of the physician as if by a charm; the attendants are all intelligent, faithful, of a patience capable of every trial. So true, indeed, was all this, that in order to ensure sleep, all that was necessary in the case of even the most excited patients, was to have them swallow a large glass of fresh water at bed-time! Gentlemen, when I read these things, written in good faith by a conscientious physician worthy of all respect, I bow my head in admiration. I am struck with the fact that in a latitude differing so slightly from ours, there are lunatics so entirely different from those which I have had occasion to observe; that among those Eng-

* *Annales Médico-Psychologiques*, November, 1880.

lish people, who do not exactly shine by reason of their gentleness and mansuetude, there suddenly appears on the scene a corps of attendants, so gentle, so patient, so long-suffering. But having admired, I examine and interrogate; and I learn that in all these asylums, so easy of management, a few auxiliary means are nevertheless necessary. It may be a padded cell in which the patient can be abandoned to himself without fear of self-injury; gloves like those used by boxers and fencers, which they apply to prevent him from injuring himself or others; or garments of a thick substantial fabric, buttoned behind, and used to preclude their removal or destruction; or, again, they may envelop him in a sheet; finally and especially; it is surveillance, a surveillance exercised every instant by two, four, or it may be six of these model attendants, who delicately seize the patient in their robust arms whenever he becomes too boisterous, and, without struggle, without violence, have him glide into the padded cell. And these are not the only means; the lavish use of narcotics, such as opium, morphia and chloral, forms an essential part of non-restraint.

"Quite recently the German Psychiatrical Society put this question on the order of the day. It was discussed at great length, a committee was appointed to examine it in all in its bearings, and each member related what his individual experience had been. 'I know no alienist,' said Laehr, 'who accepts non-restraint in an absolute manner. Nor is there any who voluntarily accepts means of restraint and applies them systematically.' The case could not be better stated, and I venture to say that in France we are nearly all of the same opinion. We avoid restraint as much as possible, but when it is imposed on us by force of circumstances, it is our duty to apply it, for we have to protect the madman against himself, and ourselves against him. I use the camisole, but I use it as seldom as possible, and on an average I have never had two per cent. of patients on whom it was applied. I say emphatically that when the camisole is well made, when it is cut from a soft and flexible material, when it is sufficiently ample, when, finally, it is only used on the physician's order,

and under his control, then not only does it not hamper the patient's movements, but it enables him to move about at liberty, and, if need be, he may be afforded sufficiently free motion of the arms and hands. If, in viewing the question from its sentimental aspect, you deplore the insult offered to manly dignity by camisoling a fellow-creature, let me ask if this manly dignity is not otherwise compromised by the fact of patients covering themselves with ordure, denuding and mutilating themselves, and striking those who surround them? I may say that for me the camisole possessess one immense advantage—it prevents struggling between the patient and his keepers."

Among American superintendents, no one stands higher than Dr. T. S. Kirkbride, and in his views he represents the ideas held by the most eminent and successful of his associates. In his report for 1852, he refers to the subject of restraint in the following terms: "No point connected with the treatment of the insane is more conclusively established than that every such institution may be conducted without any mechanical restraint whatever; whether it is expedient to do so under all circumstances is not so well settled. To dispense with restraining apparatus entirely, requires that a hospital should be so constructed as to give all the benefits of the most perfect classification; that it should always have a full force of tried attendants and abundant means of exercise and occupation in the open air." The amount of restraint used in the hospital under charge of Dr. Kirkbride is perhaps less than in any other American hospital; owing perhaps in part to the fact that a large majority of his patients are drawn from the wealthier classes of society, and whose friends are able and willing to pay for every comfort and convenience.

Elsewhere the doctor says: "The use of mechanical means of restraint, and the protracted seclusion of patients in their rooms, ought both always to be regarded as evils of no trifling magnitude, and to abate which as far as possible no effort should be left untried. Besides leading patients into bad habits, the frequent use of the means referred to in a ward, induces attendants and others to look upon them as a common

resource in cases of difficulty and danger, to regard them as their grand reliance in every emergency, and to forget the great power of other measures that are entirely unobjectionable—the value of tact and kindness and sympathy in controlling the violence and dangerous propensities of the insane. Objectionable as I deem the use of restraining apparatus in a hospital for the insane, it cannot be too strongly insisted on that it is no advance to substitute the frequent and long-continued seclusion of the patients." *

Dr. H. P. Stearns, in his report of the Hartford Retreat for the year 1877, on page 27, uses the following language:

"They (waistcoat, wristlet, camisole, manacles, muffs, etc.) are eminently *unscientific*, and should be dispensed with *as far as possible*. It has been my aim to earnestly and carefully study each case coming under my observation with this in view, and I am happy to be able to report that we have succeeded in passing the year without the use of any of these means of mechanical restraint."

The reasonable advocates of non-restraint do not deny that cases may occur when the use of restraint may be of service and even necessary. They insist, however, that it should not be resorted to except in a case of clear necessity, and that its use shall only be ordered by the medical officer after personal inquiry, as he would order any other remedial agent.

I have now, ladies and gentlemen, traversed with you the field of mental diseases, and tried to give you as clear an idea as possible of their fundamental principles, their symptoms, treatment and jurisprudence. As you are aware it is a subject in which I have been deeply interested for more than fourteen years, and in preparing and delivering these lectures, I have been engaged upon a labor of love; and if they aid any one of you in restoring health to the diseased mind I shall feel amply repaid for my work.

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* *Insanity and Insane Asylums.* Report of E. T. Wilkins, M.D., Commissioner in Lunacy for the State of California, p. 106.

INDEX.

A

Aconite, 140; general indications for, 155; in mania, 183, 184, 195, 196, 275; in hysteria, 385.
Actæa racemosa, 151; in melancholia, 154; in mania, 184; in general paralysis, 351; in hysteria, 385; in hypochondriasis, 390; in chorea, 401.
Activity of intellect in epileptics, 282.
Acts of the insane, 62 et seq.
Affective monomania, 220; case of, 232.
Agaricus musc., in epilepsy, 319; in general paralysis, 354.
Age in relation to insanity, 92; to hysteria, 370; to chorea, 394.
Albuminuria, as a cause of puerperal insanity, 265.
Alcohol, the use of, in general paralysis, 351.
Alison, Dr., on hysteria, 369.
Allen, Dr. T. F., on use of bromide of potash in epilepsy, 316.
Allman, Dr., address on biology, 13.
Althaus, Dr. Julius, on mental condition of epileptics, 279; on pathology and causes of chorea, 379.
Aluminium, use of, 123, 124; in general paralysis, 354.
Amyl nitrite, in epilepsy, 317.
Anacardium, indications for, in puerperal insanity, 275, 276; in general paralysis, 351; in hypochondriasis, 390.
Anæmia, as a factor in puerperal insanity, 264.
Anstie, Dr., on hereditary neurosis, 83; relations of alcoholism to insanity, 87.
Aphonia, laryngeal and hysterical, 380.
Apis mel., in melancholia, 139, 141, 144.
Apparatus of restraint, description of, 65.
Appetite and digestion, general disturbances of, 56.
Argentum met., in epilepsy, 314.
Argentum nit., 124; in melancholia, 154; in epilepsy, 314.
Arnica, 184, 275; in general paralysis, 354.
Arsenicum alb., 139, 144; in melancholia, 150, 153, 154; in mania, 185, 186; general indications for, 156, 275; in general paralysis, 351, 354; in hypochondriasis, 390.
Artificial feeding of the insane, 68 et seq.
Asafœtida, in hysteria, 385; in hypochondriasis, 390.
Ataxic gait in general paralysis, 333.
Atropine, use of, in epilepsy, 317.
Attitude of dejection in melancholia, 148.
Aura in epileptic insanity, 285; intellectual or emotional disturbances as a substitute for, 285, 308.
Aurum, in melancholia, 123, 124; with climacteric, 130, 150, 275; in hypochondriasis, 390, 391.
Austin, Dr., on prodroma in general paralysis, 330.

B

Bacon, Dr. G. M., on nosology of general paralysis, 323.
Bæhr, Dr., treatment of general paralysis, 354; of hypochondriasis, 391.
Baillarger, on hereditary influence, 86; folie circulaire, 211; sexual instinct in general paralysis, 330; varieties of general paralysis, 341; melancholic form of general paralysis, 342; pathology of general paralysis, 359.
Baptisia, in melancholia with stupor, 139, 140, 141, 144.
Bastian, Dr. C., on pathology of chorea, 399.
Baths, use of, in mania, 177; tepid, in general paralysis, 352; abuse of, 444.
Bayle, on pathology of general paralysis, 359.
Beddoes, Dr., on disturbance of speech in epilepsy, 282.

Bed-sores, in general paralysis, 358.
Bed-strap, description of, 67.
Bell, Dr. Luther, when to feed the insane, 72.
Belladonna, in melancholia, 124; with stupor, 141, 142, 144; general indications for, 157; in mania, 182, 183, 184, 185, 186, 187, 192, 196, 197, 198; in puerperal insanity, 270, 275; in epilepsy, 315, 317; in general paralysis, 351, 355; in hysteria, 385.
Berjeau, on treatment of hypochondriasis, 392.
Blandford, Dr. G. F., false beliefs of the insane, 37; acts of the insane, 62; causes of insanity, 91; exalted ideas in general paralysis, 331; pathology of general paralysis, 360.
Bonnet, on pathology of general paralysis, 360.
Brain, as an organ of the mind, 12.
Brain-cells, function of, 20, 22.
Breathing, peculiar, in melancholia, 148.
Breeches, restraint, for masturbators, 66.
Brett, Sir W. P., on responsibility of the insane, 425, 426.
Brewster, on hallucination, 31.
Brierre de Boismont, hallucination in epilepsy, 310; on mental prodromata in general paralysis, 330.
Brigham, Dr. A., insanity a physical disease, 15.
Briquet, relation of sex to hysteria, 370.
Brodie, Sir Benj., on melancholia, 115; on hysterical affections of the joints, 380.
Bromide of potassium, in puerperal insanity, 274; in epilepsy, 315.
Brougham, Lord Chancellor, on testamentary capacity in partial insanity, 437.
Brown, Dr. J. Crichton, cranial injuries as a cause of insanity, 90; on puerperal insanity, 273; on the aura of epileptic insanity, 285; the earliest symptoms of general paralysis, 325, 326, 327, 331; duration of general paralysis, 350; pathology of general paralysis, 359; necroscopic appearances in general paralysis, 362; on responsibility of the insane, 429.
Brown, Dr. W. A., on artificial feeding, 72; intellectual weakness from epilepsy, 286.
Brown-Sequard, on pathology of epilepsy, 290.
Bryonia, 186, 275.
Bucknill, Dr. J. C., definition of insanity, 10; on insane impulse, 41; early symptoms of insanity, 47; dreaming as a warning symptom, 51; sex as a factor in insanity, 92; on dementia, 110; on simple melancholia, 123; on melancholia with stupor, 137; chronic mania, 187; homicidal mania, 247, 248; on kleptomania, 252; responsibility of epileptics, 312; pathology of general paralysis, 360.
Bullard, Dr., case of mania, 178.
Burgher, Dr. J. C., on chorea, 393.
Butler, Dr. W. M., indications for the use of fourteen principal remedies, 155.

C.

Cactus grand., in melancholia, 152, 275.
Calcarea carb., general indications for, 158; 156, 157, 275; in epilepsy, 320; in general paralysis, 354; in hysteria, 385; in hypochondriasis, 390; in chorea, 402.
Calcarea phosph., 351.
Calmeil, on mania transitoria, 205; on pathology of general paralysis, 359; case of impulsive insanity, 421.
Camisole, use of, 65.
Cannabis ind., 275, 351; in hypochondriasis, 390, 391.
Cantharis, in mania, 199.
Capsicum, 275.
Carpenter, Dr. W., on moral insanity, 415; on insane impulse, 418, 423.
Castelnau, on mania transitoria, 202.
Catalepsy, definition of, 403: symptoms of, 404; cases of, 404–408.
Caulophyllum, in hysteria, 385.
Causation, of insanity, 78–94; of melancholia, 128; of mania transitoria, 208; physical, of puerperal insanity, 262; of general paralysis, 347.
Causticum, in general paralysis, 355; in chorea, 403.
Cerebral congestion, symptoms of, in mania transitoria, 208.
Chamomilla, in melancholia, 151.
Changes, in ideas, in monomania, 229; in conduct of epileptics, 282, 284, 287; in mental state, 58; in character, 59.

Charlesworth, Dr., reform in asylum management, 441.
Child-bearing, as a cause of insanity, 90; mental and physical changes, incident to, as a cause of puerperal insanity, 261; aversion to, of American women, 261; frequent, as a cause of puerperal insanity, 265.
Child-birth, as a cause of mania transitoria, 208; the insanity of, 264.
Chloral hydrate, the use of, 142; in puerperal insanity, 274; in general paralysis, 353.
Chorea, definition of, as a neurosis, 393; description of, 394; facial expression in, 395; choreic thrust, 396; hemi-chorea, 397; mental symptoms, 397; differential diagnosis, 398; causes, 398; pathology, 399; prognosis, 400; hygienic treatment, 400; medical treatment, 401.
Christian, Dr., on the use of restraint, 447.
Cicuta virosa, 199.
Cimicifuga, its use in climacteric melancholia, 130, 150, 154; in mania, 184, 275, 351; in hysteria, 385; in hypochondriasis, 390; in chorea, 401.
Cina, use in chorea, 403.
Cinchona, 141, 144, 184; in hysteria, 385; in hyphondriasis, 390.
Circular insanity, see Folie Circulaire, p. 210.
Classification of insanity, 94, et seq.
Climacteric, the, as a cause of insanity, 91; with melancholia, 129.
Clothing, stripping off of, 63; destroying, 63; fantastic, 64.
Clouston, Dr. T. S., on pathology of general paralysis, 359.
Clymer, Dr. Meredith, case of mental epilepsy, 295.
Coca, 351.
Cocculus, 275, 352; in hysteria, 385; in catalepsy, 407.
Cockburn, Chief Justice, on responsibility of the insane, 427.
Combe, Dr. Andrew, definition of insanity, 10.
Complications of puerperal insanity, 272.
Conduct of epileptics, 282.
Conflict between medical and legal views of insanity, 414.
Congestion, cerebral symptoms of in mania transitoria, 208.
Congestive mania in general paralysis, 341.
Conium mac., its use in puerperal insanity, 275, 276; in general paralysis, 351; in hypochondriasis, 390.
Conolly, Dr. John, definition of insanity, 10; case of religious melancholia, 117; on digestive disturbances in melancholia, 149; on asylum reform, 442, 446.
Conscientious scruples, devolopment of, 60.
Constipated habits of insane, 57.
Countenance, appearance of the, in melancholia, 148; in mania, 172; in epileptic insanity, 311; in general paralysis, 331.
Coxe, Sir Jas., on asylum mismanagement, 446.
Cranial injuries a cause of insanity, 90.
Crib-bed, use and description of, 67.
Crocus sat., 275; in chorea, 402.
Cuprum, 275; in epilepsy, 313; in general paralysis, 351, 354, 355; in hysteria, 384.
Curability of puerperal insanity, 258, 265.
Cypripedium, in hysteria, 385.

D

Dagonet, Dr. H., intemperance as a cause of insanity, 88; on idiocy and imbecility, 104; case of kleptomania, 254.
Debreyne, Dr., on suicidal mania, 249.
Definitions of insanity, 10.
Delafosse, on mania transitoria, 205.
Delasiauve, on epileptic delirium, 298; mental symptoms of general paralysis complicated with epilepsy, 340.
Delirium, definition of, 46; in melancholia, 145; in mania, 170; without, a form of general paralysis, 343.
Delusion, definition of, 24; varieties, 38; in melancholia, 128, 145; in mania, 171; in partial intellectual mania, 222; character of, modified by habits of life, 235; exalted, in general paralysis, 335; tolerance of, in others, 336; as a test in insanity, 422.
Dementia, 110; senile, 111; acute, 111; physical symptoms of, 113; treatment of, 113.
Denio, Judge, on testamentary capacity, 435.
Depressed condition in melancholia, 147.

Despine, Dr. Prosper, definition of insanity, 11; mechanism of hallucination, 29 et seq; conditions necessary for the existence of insanity, 49; unity of the intellect, 219; on delusion, 224; case of partial intellectual mania, 230; affective monomania, 232; case of suicidal mania, 249.
Devergie, Dr. A., on mania transitoria, 202; case of, 205.
De Witt, Dr. W. H., case of mania, 180.
Diagnosis, differential, between acts done in anger and those under the influence of mania transitoria, 209; of monomania, 234; of pyromania, 245.
Dickenson, Dr., the pathology of chorea, 399.
Dickson, Dr. J. T., on education of imbeciles, 109; case of melancholia, 117; incoherence in mania, 171; the varieties of epileptic insanity, 282; disturbances of speech in epilepsy, 282; unconsciousness in epilepsy, 297.
Digestion, disturbances of, 56; in melancholia, 149.
Digitalis, in melancholia, 143, 144, 150; general indications for use of, 158; in general paralysis, 351, 352.
Double forme, variety of general paralysis, 343.
Dreams, an early symptom of insanity, 50; in melancholia, 148.
Drouet, Dr., on tenacity of ideas in monomania, 224; distinction between general paralysis and ambitious mania, 336.
Dumesnil, on nocturnal epilepsy, 305; epileptic vertigo, 305.
Dunglison, Dr., definition of hypochondriasis, 386.
Duration of mania, 173.

E

Early treatment, importance of, 194.
Ecclesiastical law and testamentary capacity, 439.
Echeverria, Dr. M. G., relations of epilepsy to other neurosis, 279; heredity and epileptic insanity, 281; mental state of epileptics; *grand* and *petit mal*, 290; pathology of epilepsy, 291; duration of epileptic paroxysm, 300; automatic habits of epileptics, 307; nocturnal epilepsy, 304; mental disturbances, 310; feigned epilepsy, 311.
Edmonds, Judge, definition of insanity, 10; on responsibility, 427.
Education of idiots and imbeciles, 109.
Emotional insanity, see Impulsive Insanity, 415.
Endocarditis, in chorea, 400.
Epilepsia larvalis, description of, 301; case of, 302; similar to recurrent insanity, 303; cases of, 304, 305, 306.
Epilepsy, as a cause of insanity, 90; a cause of mania transitoria, 208; relations to somnambulism, 289; pathological centre of, 290; pathology of, 291; automatic nature of acts in, 292; cases of mental epilepsy, 293, 295; with kleptomania, 295; unconsciousness in, 297; symptoms of maniacal paroxysm in, 298; feigned, 311.
Epileptic insanity, features of, 278; relation to other neuroses, 279, 280; larval epilepsy, 280; causes, 280; how displayed, 281; definition of, 281; change of conduct in, 282; intellectual activity in, 282; changes in character, 284, 287; vicarious paroxysm, 284; aura in, 285; violence of fury, 286; intellectual *grand* and *petit mal*, 288; homicidal tendency in, 289; duration of paroxysm, 300; state of unconsciousness, 307; state of semi-somnambulism, 307; physical and mental aura in, 308; hallucinations, 310; responsibility, 312; medical treatment, 313.
Epileptiform fits in general paralysis, 338.
Erlenmeyer, on pathology of general paralysis, 359.
Esquirol, on hereditary transmission, 86; on sex as a factor in insanity, 92; classification, 98; on idiocy, 101, 103; on imbecility, 103; physical condition in melancholia, 147; description of acute mania, 173; of chronic mania, 174; case of pyromania, 241; case of epileptic mania, 299; on emotional insanity, 416; on impulsive insanity, 417.
Eulenberg, definition of catalepsy, 403.
Exaggeration of usual methods of thought, 61.
Excitement, absence of, in pyromania, 244.
Exciting causes, physical, of insanity, 87.

Excito-motor disturbances, in general paralysis, 338.
Exhilaration of spirits, in insanity, 62; in mania, 170.
Exposure, indecent, 64.
Eyes, peculiar appearances of, in general paralysis, 332; changes in, as shown by the ophthalmoscope, 190.

F.

Facial expression, in acute mania, 172; in chronic mania, 190; in epilepsy; 311; in general paralysis, 331; in chorea, 395.
Falret, Dr. Jules, on folie circulaire, 210; responsibility of epileptics, 278; larval epilepsy, 280; varieties of epilepsy, 282; violence of epileptic rage, 286, 292; mental state of epileptics, 288; relations between epilepsy and somnambulism, 289; mental aura, 308; the use of bromide of potash in epilepsy, 316; history of general paralysis, 323; congestive maniacal form of general paralysis, 341; remissions in general paralysis, 338.
Feeding the insane, 68 et seq.
Feigned epilepsy, 311.
Ferrier, Dr. David, on cerebral function, 362.
Fever, a cause of insanity, 90.
Filthy habits in the insane, 63; treatment of, 194.
Fixed idea, in monomania, 229.
Flesh, gain of, as a symptom, 57.
Food, abstinence from, 69; causes of, 69; results from, 71; in puerperal insanity, 269.
Folie circulaire or Folie à double forme, 210; description of, 212; stage of excitement, 213; stage of remission, 213; stage of depression, 213; physical symptoms, 215; sex as a factor in, 216; prognosis of, 216; jurisprudence of, 217.
Foville, Dr., on tenacity of ideas in monomania, 224, 226; aura in epileptic insanity, 285.
French, Dr. A. J., 401.
Frequency of puerperal insanity. 258.
Friedreich, case of kleptomania, 255.

G.

Gait, ataxic, in general paralysis, 333.
Galvanism, in general paralysis, 352.
Gelsemium, 139, 140, 144; in mania, 178; in puerperal insanity, 275, 276; in epilepsy, 315; in hysteria, 385.
Georget, early symptoms of insanity, 50; on imbecility, 106.
General Paralysis of the Insane, definition of, 321; importance of recognizing the early signs, 322; history of, 323; nosology of, 324; varieties of, 324; order of development of symptoms, 325; mental symptoms, 325; motor symptoms, 326; stages of, 327; changes of disposition in, 328; delusions of, 329; prodromata, 330; symptoms of, 330, 331; ataxic gait, 333; delusions in, 334; tolerance of the delusions of others, 336; diagnosis from ambitious mania, 336; character of delusions, 337; remissions in, 337; physical changes, 338; epileptiform fits in, 338; mental condition produced by epileptic fits, 340; maniacal or congestive form, 341; melancholic form, 342; without delirium, 342; double forme, 343; sex as a factor in, 346; causes of, 347; prognosis, 349; duration of, 350; causes of death, 351; treatment of, 351; hygienic treatment of, 356; bed-sores in, 358; pathology, 359; pathological anatomy, 362; jurisprudence of, 366.
General Paresis, see General Paralysis.
Gintrac, Dr., on mania transitoria, 205.
Globus hystericus, 372.
Gooch, Dr., on puerperal insanity, 273.
Grand mal, le, 288.
Graphites, 124.
Gratiolet, on hallucinations, 33.
Gray, Dr. John P., views on insanity, 16; definition of hallucination, etc, 25; causes of hallucination, 26; on impulse, 40; on lucid intervals, 44; apparatus for restraint, 68; early symptoms in general paralysis, 325; responsibility of the insane, 426; on non-restraint, 446.
Greenleaf, on delusion as a test of insanity, 429.
Gridley, Judge, on testamentary capacity in monomania, 436.
Griesinger, insanity as a disease, 15; insane impulse, 42; causes of insanity, 81, 82, 83; sex as a factor in insanity, 92; idiocy and imbecility, 101; depression of mind in

melancholia, 115; sudden mental changes in insanity, 125; melancholia with stupor, 136; melancholia, 167; folié circulaire, 210.
Guislain, on speech of the insane, 56; on masturbation among the insane, 89; melancholia without delusion, 125; melancholia, 167.

H.

Hahnemann, the first advocate of asylum reform, 440.
Hale, Dr. E. M., on bromide of potassium in epilepsy, 316.
Hale, Lord Justice, on responsibility of the insane, 429.
Hallucination, definition of, 23; consistent with sanity, 25; of the insane, 27; mechanism of, 29, 35; in melancholia, 145; in mania, 171; in epilepsy, 310.
Hamilton, Dr. Allen McLean, on chorea, 396, 398; pathology of, 399.
Hammond, Dr. Wm. A., definition of insanity, 10; views on mind, 14; insane impulse, 43; mania transitoria, 205; symptoms of mania transitoria, 208; the use of the bromides in epilepsy, 317; insanity without delirium, 422.
Hart, Dr. C. P., on Gelsemium in mania, 178; medical treatment of hypochondria, 390, 391.
Hartmann, Dr., treatment of hypochondriasis, 391.
Head, size of, in idiots, 105; in imbeciles, 105.
Headache, an early symptom of insanity, 54; in melancholia, 148; in mania, 171.
Heart disease, simulation of, in hysteria, 378.
Helleborus, 275.
Helonias, 275.
Hemi-chorea, 397.
Hemiplegia, hysterical, 378.
Hepar. s. c., in puerperal insanity, 275, 276; in nocturnal epilepsy, 320.
Heredity, as a cause of insanity, 78, 84 et seq.; with puerperal insanity, 260, 264; and epileptic insanity, 280; and general paralysis, 347.
Hering, Dr. C., on Belladonna in epilepsy, 317; on treatment of general paralysis, 355.
Hill, Dr. Gardner, on asylum reform, 442.
Hitzig, on the pathology of general paralysis, 359.
Hogeboom, Judge, on responsibility and insane impulse, 428.
Home-sickness and pyromania, 241.
Hoyne, Dr. T. S., on Belladonna in epilepsy, 317.
Hughes, Dr. C. H., views on insanity, 13.
Hughes, Dr. R, on bromide of potassium in epilepsy, 315.
Hydrastis, in hysteria, 385.
Hydrocyanic acid, in epilepsy, 319; in hysteria, 384.
Hyoscyamine, for excitement of general paralysis, 355.
Hyoscyamus, in melancholia, 123; general indications for, 159; in mania, 179, 185, 186, 192, 196, 197, 198, 199, 200; in puerperal mania, 268, 269, 275; in epilepsy, 315, 318; in general paralysis, 351, 355; in hysteria, 385; in chorea, 402.
Hypochondriacal ideas in melancholia, 146.
Hypochondriasis, mental state in, 228; definition of, 386; as a mental disease, 386; description of, 387; morbid dread of disease in, 388; diagnosis from melancholia, 388; physical symptoms of, 390; treatment, 390.
Hysteria, nature of, 367; susceptibility to, 369; sex and age as factors in, 370; epidemic nature of, 371; mental and physical symptoms, 371; globus hystericus, 372; paroxysms of, 373; visceral paroxysms, 374; diagnosis between hysterical and epileptic fits, 375; simulation of heart-diseases, 377; false motor paralyses, 378; hysterical paraplegia, 379; aphonia, 379; affections of the joints, 381; mental disturbances, 381; influence of marriage upon, 384; medical treatment, 384.

I.

Idea, change of, in monomania, 229; fixed idea in intellectual monomania, 229.
Idiocy, 100 et seq.; cerebral development in, 101; definition of, 103.
Idiots, education of, 109.
Ignatia, in melancholia, 151, 154, 275; in epilepsy, 314, 319; in general

paralysis, 351; in hysteria, 385; in hypochondriasis, 390; in chorea, 402.
Ill-health, as a cause of insanity, 91; in epileptic insanity, 280.
Illusion, definition of, 24, 27; in melancholia, 145; in mania, 175.
Imagination, want of, in melancholia, 145; in monomania, 217; workings of, 227.
Imbeciles, weakness of moral sense, 108; education of, 109; testamentary capacity of, 433.
Imbecility, 100 et seq.; definition of, 103; mental power in, 107; degrees of, 107; moral, 108.
Imitation, as an influence in pyromania, 244.
Imitative faculty in hysteria, 375.
Impassioned condition in monomania, 218.
Impulse, definition of, 40.
Impulsive insanity, 221, 417; responsibility in, 428.
Inception, gradual, of insanity, 50.
Incoherence in mania, 170.
Incubation, period of, in puerperal insanity, 271.
Indecision of purpose, 61.
Influence of imagination in producing fixed idea, 227, 229.
Injuries, cranial, a cause of insanity, 90; of epilepsy, 280.
Insane persons deny their insanity, 220.
Insane temperament, 83; and mania transitoria, 208; as a cause of puerperal insanity, 260.
Insanity, definitions of, 10; as a plea against punishment, 424.
Instinctive insanity, see Monomania, 217.
Intellectual, activity in epileptics, 282; aura, 308.
Intellectual mania, partial, 221.
Intellect, unity of the, 219.
Intemperance, a cause of insanity, 87; cause of general paralysis, 347; cause of epileptic insanity, 280; cause of mania transitoria, 208.
Intervals, lucid, 44.

J.

Jaccoud, intellectual deterioration in epilepsy, 280.
Jackson, Dr. J. Hughlings, on varieties of epilepsy, 281; on automatic nature of epileptic actions, 292; the pathology of chorea, 399.
Jahr, Dr. J. H. G., 403.
Joints, hysterical affections of the, 381.
Jones, Dr. E. U., 402.
Jurisprudence, Medical, of general paralysis, 366; of somnambulism, 412; general observations upon, 413; in criminal cases, 422 et seq.; examples of English law, 424; of American law, 427.
Jury, to decide as to responsibility, 430.

K.

Kafka, on Hepar sulph., for nocturnal epilepsy, 320; treatment of general paralysis, 353.
Kali brom., 275; see also bromide of potassium.
Kinship, of nervous disorders, 85.
Kirkbride, Dr. Thos. S., views on restraint, 449.
Kleptomania, associated with pyromania, 242; description of, 252; mental and physical concomitants of, 253; cases of, 253 et seq.; with pregnancy, 255; with epilepsy, 295; jurisprudence of, 256.
Knowledge of right and wrong, as a test of insanity, 422, 424.
Kussmaul, pathology of epilepsy, 290.

L.

Lachesis, general indications for, 160; in mania, 200, 275; in general paralysis, 355.
Lactation, the insanity of, 270 et seq.
Larvated epilepsy, description of, 301; see epilepsia larvalis.
Laryngeal and hysterical aphonia, 380.
Lawson, Dr. R., on Hyoscyamus in mania, 198.
Le Grand du Saulle, case of pyromania, 236; character of the epileptic insane, 287.
Le Maëstre, Dr., on varieties of general paralysis, 324; general paralysis à double forme, 343.
Leubuscher, Dr., hereditary influence, 86.
Lilienthal, Dr. S., medical treatment of epilepsy, 315; medical treatment of general paralysis, 352.
Lilium tigrinum, in melancholia, 153; general indications for, 160.
Lucas, Dr. Prosper, on hereditary transmission, 85.

Lucid intervals, definition of, 44, and testamentary capacity, 438.
Ludlam, Dr. R., on simulated heart disease in hysteria, 377; diagnosis between hysterical and laryngeal aphonia, 380.
Luys, Dr. J., the pathology of general paralysis, 360.
Lycopodium, 179, 275; in hypochondriasis, 390.
Lypemania, 114; see melancholia.

M.

Macdonald, Dr. A. E., on importance of recognizing the early signs of general paralysis, 321.
MacFarland shooting Richardson, case of, 205.
McIntosh, Dr., on mania transitoria, 209.
Mackenzie, Dr., pathology of chorea, 399.
Macrocephalous idiots, 105.
Mania, 167; definition of, 168; symptoms of, 168; duration, 173; description of acute, 173; of chronic, 174, 187; tendency to violent acts in, 189.
Mania, partial intellectual, 221.
Mania, suicidal, see Suicidal Mania.
Mania transitoria, 202; symptoms of, 203; cases of, 203, 205; described by Dr. Hammond, 206; premonitory symptoms, 206, 207, 208; predisposing influences, 207; due to larval epilepsy, 304.
Maniacal paroxysms in epilepsy, 298.
Manning, Dr. Norton, on asylum management, 443, 445.
Marc, on pyromania, 244, 246; on kleptomania, 252.
Marcé, Dr., on mental integrity in epileptic insanity, 279; on epileptic rage, 292; duration of epileptic paroxysm, 300; pathology of general paralysis, 360.
Masturbation, as a cause of insanity, 89.
Maudsley, Dr. Henry, definition of insanity, 11; on brain and mental function, 14; insane impulse, 41, 42; hereditary predisposition, 79; physical causation, 80; climacteric insanity, 91; remarks on Dr. Skaës classification, 95, 97; classification, 98; idiocy and imbecility, 103; moral imbecility in the young, 108; sudden mental changes in insanity, 124; melancholia without delusion, 127; on climacteric melancholia, 130; symptoms of mania, 172; on transitory mania, 206; on fixed delusion, 222; case of suicidal mania, 250; epileptic temperament, 280; on vicarious epileptic attacks, 284; diagnosis of epileptic homicide, 289; earliest symptoms in general paralysis, 325; responsibility of somnambulists, 412; responsibility in moral insanity, 418; absence of moral sense, 418; on responsibility, 429; the use of restraint, 445.
Maxwell, Dr., on treatment of idiots, 109.
Mechanism, of normal perception, 35; of hallucination, 35.
Medical jurisprudence, general observations on, 413.
Megalomania, how distinguished from general paralysis, 336.
Melancholia, 114 et seq.; definition, 114; description of, 115; divisions of, 120; without delusion, 125; causes of, 128; delusious in, 128; its connection with uterine disorder, 129; connection with climacteric, 130; with stupor, 132; case of, 134; diagnosis from acute dementia, 137; hygienic treatment, 143; mental symptoms, 145; physical symptoms, 147; medical treatment, 150 et seq.; diagnosis from hypochondriasis, 388; melancholic form of general paralysis, 342; testamentary capacity, 434.
Memory, state of the, in monomania, 217; required in making a will, 438.
Mental changes, 58; symptoms of melancholia, 145; of mania, 174; impairment in epilepsy, 278, 285, 286; epilepsy, case of, 293, 295; condition in epileptic general paralysis, 340.
Mercurius proto-iod., 270.
Mercurius sol., in melancholia, 121, 275; in general paralysis, 354; in hypochondriasis, 390.
Merson, Dr. John, on age as a factor in insanity, 93.
Meyer, Ludwig, on pathology of general paralysis, 359.
Mickle, Dr. Julius, a definition of general paralysis, 321; stages of general paralysis, 327; on prodromata of general paralysis, 329; ataxic gait in general paralysis, 333; on hygi-

enic treatment of general paralysis, 356, 357.
Microcephalous idiots, 104.
Mind, the part taken by the, in hallucinations, 32.
Mind and body, connection between, 12, 14, 17.
Monomania or Instinctive Insanity, 217; the term monomania incorrect, 217; state of memory in, 218; state of the will, 218; futility of argument in, 219; forms of, 220; delusions, 222; reasoning faculty in, 223; tenacity of ideas, 224, 230; change of ideas, 229; formation of delusion, 228, 229; cases of, 224, 225, 226, 230, 232; mental symptoms of, 232; influence of general excitement upon, 235; prognosis of, 223; diagnosis of, 234; testamentary capacity in, 434, 436.
Moral and Physical Causes of Insanity, 78 et seq.
Moral Insanity, 413; as a source of conflict between law and medicine, 414; responsibility in, 415; definition of, 415; difference from vice, 416; varieties of, 417; impulsive insanity, 417 et seq.; cases of, 420 et seq.; jurisprudence of, 430 et seq.
Moral Sense, absence of, 419.
Moreau, on headache in insanity, 55; on intemperance as a cause of insanity, 87.
Morel, on intemperance as a cause of insanity, 87, 88; on masturbation and insanity, 90; on epileptic insanity, 284; on intellectual activity of epileptics, 282; a case of epileptic mania, 299; description of epilepsia larvalis, 301, 306; on instantaneous insanity, 304.
Morbid impulse of epileptics, 303.
Morse, Dr. N. R., treatment of chorea, 401, 402.
Moschus, in hysteria, 385.
Motor derangement in general paralysis, 326, 333.
Motor disturbances in general, 57.
Motor paralysis, simulated in hysteria, 378.
Motives prompting incendiarism, 241.
Muff and wristlets, description and use of, 66.
Muscular restlessness, 57.

N.

Naked, the propensity to go, 63.
Naso-œsophageal tube, dangers of, 73; advantage of, 74.
Natrum carb., in hypochondriasis, 390, 391.
Natrum mur., in melancholia, 120, 151, 152, 275; in general paralysis, 353; in hypochondriasis, 390.
Necessity of seclusion in puerperal insanity, 259.
Neumann, on classification, 167.
Neuroses, the insane and epileptic, as predisposing influences in mania transitoria, 207.
Nichol, Sir John, on testamentary capacity, 436.
Nitrite of amyl, in epilepsy, 317.
Nocturnal fits, 304; case of, 205.
Non-restraint, 440 et seq.
Nostalgia and pyromania, 241.
Nutrition, disordered, a cause of insanity, 90.
Nux vomica, 123; general indications for, 161; in mania, 179, 184, 182, 187, 200, 275; in epilepsy, 314; in general paralysis, 351, 353, 354; in hysteria, 385; in hypochondriasis, 390, 391; in chorea, 401.

O.

Œnanthe crocata, in epilepsy, 319.
Old age and testamentary capacity, 437.
Oleander, in melancholia with stupor, 144.
Ophthalmoscopic appearances, in insanity, 190.
Opium, 141, 144; in mania, 199, 200, 275.
Ordronaux, Dr. John, production of hallucinations, 25.

P.

Packard, Dr., 401.
Paralytic Dementia or Insanity, see General Paralysis, 321.
Paraplegia, hysterical, 379.
Partial insanities, 424.
Partial intellectual monomania, 220, 221.
Payne, Dr. F. W., case of hysteria, 383.
Petit mal, le, 288.
Petroleum, 275; in hypochondriasis, 390.

Phalan, Prof. R. A., a case of chronic mania, 191.
Phosphide of zinc, in general paralysis, 351.
Phosphoric acid, in mania, 183, 275.
Phosphorus, 275; in general paralysis, 351, 353, 354; in hysteria, 385.
Physical causes, of insanity, 78; of puerperal insanity, 262.
Physical condition of idiots, 105.
Physical symptoms, in melancholia 147.
Pinel, on dreams in early stage of insanity, 50; on disturbed digestion in insanity, 56; on emotional insanity, 416; case of impulsive insanity, 420; work of asylum reform, 441.
Piorry, hereditary nature of insanity, 85.
Platina, general indications for, 162, 275; in general paralysis, 353; in hysteria, 385; in hypochondriasis, 390.
Plea of insanity as a defense in criminal cases, 413.
Plumbum, the use of, in general paralysis, 354.
Poincaré, on pathology of general paralysis, 359.
Potassium bromide, in puerperal insanity, 274; in epilepsy, 315.
Pregnancy, as a depressing factor, 259; mental and physical disturbances produced by, 259; insanity of, 259.
Premeditation no proof of sanity, 62.
Premonitory stage, in mania, 169; in mania transitoria, 206.
Prevention of criminal acts by the insane, 432.
Prichard, Dr., on melancholia without delusion, 126; on moral insanity, 415.
Psorinum, in epilepsy, 321.
Puerperal insanity, definition of the term, 257; special changes in, 257; periods of special liability to, 258; frequency of, 258; curability of, 258, 265; need of seclusion in, 258; influence of pregnancy, 259; causes of, 260, 261, 262, 264; danger of recurrence, 263; at confinement, 264; relation of puerperal condition to, 264; maniacal form of, 265; symptoms of, 266; prognosis, 267, 272; cases of, 268 et seq.; during period of lactation, 270; forms of, 271; complications of, 272; treatment of, 273.
Pulsatilla, in melancholia, 123, 152, 154, 275; in hysteria, 385; in hypochondriasis, 390.
Punishment for the insane, 430, 432; influence of, in preventing crime, 432.
Pyromania, definition of, 236; causes of, 236; cases, 236 et seq.; motives giving rise to, 241; in young people, 241; complicated with kleptomania, 242; complete, 243; incomplete, 242; curability of, 244; absence of excitement in, 244; evolution of the sexual function as a factor in production of, 244.

R.

Radcliffe, Dr., on intellectual aura, 285.
Raue, Dr. C. G., case of catalepsy, 405.
Ray, Dr. Isaac, sleeplessness and insanity, 89; on classification, 99; on idiocy and imbecility, 104; on pyromania, 244, 246; on kleptomania, 252; on its jurisprudence, 255; on unconsciousness in epilepsy, 307; on responsibility of epileptics, 312; on existence of moral insanity, 416.
Reasoning, correctness of, in monomania, 219; faculties of, 223.
Recurrence of puerperal insanity, 263.
Recurrent insanity, similar to epilepsia larvalis, 302, 303.
Religious melancholia, 116.
Remissions in general paralysis, 337.
Remorse, absence of, in pyromania, 244.
Responsibility in insanity, 414, 423, 424 et seq.; a question for the jury, 430; principles for deciding, 431.
Restraint, apparatus of, 65; use of, 440; abuse of, 444; see also Non-Restraint.
Reynolds, Dr. Russel, on mental changes in epilepsy, 278; on hereditary and epileptic insanity, 280; the pathology of epilepsy, 291; pathology of chorea, 399.
Rhus tox., use of, in mania; 200, 275; in general paralysis, 353, 354.
Richardson, the shooting of, by MacFarland, 205.
Right and wrong, a knowledge of, as a test of insanity, 422, 424.
Ritti, Dr., on hallucination, 29, 31.
Romberg, on headache in insanity, 55; on hysteria, 368.
Rousseau, J. J., case of, 228.
Ruddock, Dr., on general paralysis, 355.
Rush, Dr., on kleptomania, 252.

S.

Sanguinaria, 122.
Sankey, Dr. W. H. O., a case of mania, 168; on pathology of epilepsy, 291; violence of epileptic rage, 298; similarity of epilepsia larvalis to recurrent insanity, 302, 303; on early stages of general paralysis, 328; ataxic gait in general paralysis, 334.
Santonin, in chorea, 403.
Scales, Dr. T. S., 401.
Schlegel, a case of pyromania, 241.
Schwartzer, Dr. Otto, on transitory mania, 203.
Secale cornutum, in mania, 179, 275; in general paralysis, 354.
Seclusion, use of, 65; abuses of, 443.
Self-absorption in hysteria, 387.
Sense, part played by the nerves of, in hallucination, 29.
Sepia, in melancholia, 123, 153; general indications for the use of, 163, 275; in hysteria, 385; in hypochondriasis, 390.
Sex, as a factor in insanity, 91; in relation to general paralysis, 346; to hysteria, 370; to chorea, 394.
Sexual excess, as a cause of general paralysis, 348, 349; the remedies for its results, 354.
Sexual function, evolution of, as a cause of pyromania, 244.
Sheppard, Dr. Edgar, on classification, 97; a case of mania, 175; on treatment of general paralysis, 352; on the use of Strychnia in general paralysis, 354.
Silicea, 275; use of in general paralysis, 355.
Skaë, Dr., on classification, 94; on climacteric insanity, 91; on epileptiform attacks in general paralysis, 339.
Sleeplessness, as a symptom of insanity, 51; as a cause of insanity, 88; in mania, 171.
Somnambulism, state of, in epilepsy, 307; description of, 410, 411; case of, 411; condition of senses in, 412; unconsciousness in, 412; responsibility in, 412.
Speech, peculiarities of, among the insane, 55; among idiots and imbeciles, 103; in general paralysis, 331.
St. Vitus' dance, see chorea, 313.
Stael, Madame de, on case of J. J. Rousseau, 228.
Stannum, use of, in hypochondriasis, 391.
Staphisagria, 275; in general paralysis, 354; in hypochondriasis, 390, 391.
Stearns, Dr. H. P., on the use of restraint, 450.
Steinan, Dr. Julius, case of kleptomania, 253.
Stephens, Justice, on responsibility of the insane, 426.
Stomach-pump, use of, in feeding the insane, 74.
Stramonium, general indications for the use of, 164; in mania, 187, 200; in puerperal mania, 269, 275; in epilepsy, 315, 318; in general paralysis, 352, 354, 355; in hysteria, 385; in hypochondriasis, 390; in chorea, 402.
Suicidal mania, 247; suicide not inconsistent with sanity, 247; motives leading to, 248; cases of, 249, 250; hereditary nature of, 251.
Suicidal melancholia, treatment of, 150.
Suicidal tendency in puerperal mania, 267.
Sulphur, 123, 124; in melancholia, 148; general indications for use of, 165; in mania, 183, 185, 186, 200, 275; in epilepsy, 314; in general paralysis, 352, 354; in hypochondriasis, 390; in chorea, 402.
Sun-stroke, as a cause of insanity, 90.
Sydenham, on hysteria, 368.
Symptoms of insanity, 47.
Syphilis, as a cause of general paralysis, 348.

T.

Talcott, Dr. S. H., cases of melancholia, 120; of melancholia with stupor, 138; medical treatment of melancholia, 149; treatment of mania, 195; cases of mania, 179, 181; medical treatment of general paralysis, 351, hygienic treatment of, 356, pathology of, 359.
Tardieu, on mania transitoria, 205.
Temperament, the insane, 83.
Temporary insanity, character of, 203; definition, 206; symptoms of, 206, 207, 208.
Tenacity, of will in monomania, 218; of ideas, 224, 230.

Testamentary capacity in the insane, 433; of imbeciles 434; in partial insanity, 434.
Thorne, Dr., on mental epilepsy, 293.
Todd, Dr., on pathology of chorea, 399.
Transitory, the term inexact as applied to mania, 203.
Transitory mania, see Mania transitoria.
Trousseau on mental deterioration of epileptics, 284; on unconsciousness in epilepsy, 297.
Tuke, Dr. H., on development of scruples of conscience, 60; exaltation of spirits, 62; on epileptiform attacks in general paralysis, 339; diagnosis of, 340.
Tuke, Dr. Wm., on asylum reform, 441.

U.

Unconsciousness, in epileptic insanity, 278, 297, 307.
Unity, of the intellect, 219; of the mind, 219.
Uterine disorders, as a cause of insanity, 90; their relation to melancholia, 129; to mania, 180; to puerperal insanity, 259.

V.

Valerian, in hysteria, 385.
Vand der Kolk, on connection between mind and body, 19; on action of brain cells, 22; on hallucination, 31; on interchangeability of neuroses, 280; pathology of epilepsy, 290.
Van Swieten, on fixed idea in intellectual monomania, 229.
Vipera torv, in melancholia, 355.
Veratrum alb., 144; general indications for, 165; in mania, 199, 200, 275; in general paralysis, 352, 353, 355.
Veratrum viride, 139, 140, 195, 196; in general paralysis, 352.
Vertigo, epileptic, 304; cases of, 305.
Voice, alterations in, 55.
Voisin, on pathology of general paralysis, 359.

W.

Water, the use of cold, in acute mania, 177.
Watson, Dr. Thos., diagnosis between epileptic and hysteric fits, 376.
Well-being, the sense of, in general paralysis, 335.
Westphal, on pathology of general paralysis, 359.
Wharton and Stillé, on suicidal mania, 247.
Whittier, Dr. D. B., 401.
Will, strength of the, in monomania, 218.
Wilkinson, Dr. J. Garth, on the nervous system, 18; relation between automatic and voluntary nervous system, 21.
Winslow, Dr. Forbes, on brain as an organ of mind, 12; on sleeplessness as a forerunner of insanity, 52, 53; on loss of speech in insanity, 56; on changes in character, 59; on moral insanity, 415; on the period of incubation in puerperal insanity, 275; on the disturbances of speech in epilepsy, 282.
Words, wrong use of, in epilepsy, 282.
Wristlets, padded, the use of, 66.

Z.

Zincum met., in melancholia, 138; in melancholia with stupor, 138; in general paralysis, 355.
Zincum bromide, in epilepsy, 321.
Zincum oxide, in mania, 187.
Ziemssen, on globus hystericus, 372; on chorea, 396; on treatment of chorea, 400.

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